

1

Cairo Governorate

Nasr City Educational Zone
St.Fatima Language School

Answer the following questions :

تابع جديد زاكروولي على موقعنا
<https://www.zakrooly.com>

1 Choose the correct answer :

1 If $\angle X \equiv \angle Y$ and $\angle X, \angle Y$ are supplementary angles , then $m(\angle X) = \dots\dots\dots$
 (a) 45° (b) 90° (c) 135° (d) 180°

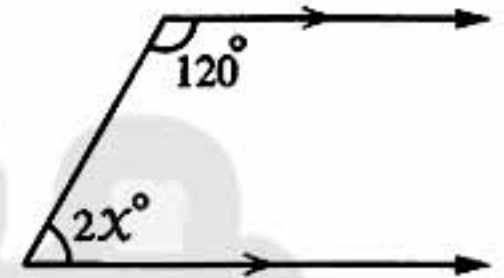
2 If two straight lines are perpendicular to a third , then the two straight lines are
 (a) perpendicular. (b) parallel. (c) intersecting. (d) congruent.

3 If $\triangle ABC \equiv \triangle XYZ$, $m(\angle A) + m(\angle B) = 100^\circ$, then $m(\angle Z) = \dots\dots\dots$
 (a) 90° (b) 100° (c) 50° (d) 80°

4 From the opposite figure :

 $x = \dots\dots\dots$

(a) 60° (b) 140°
 (c) 30° (d) 180°



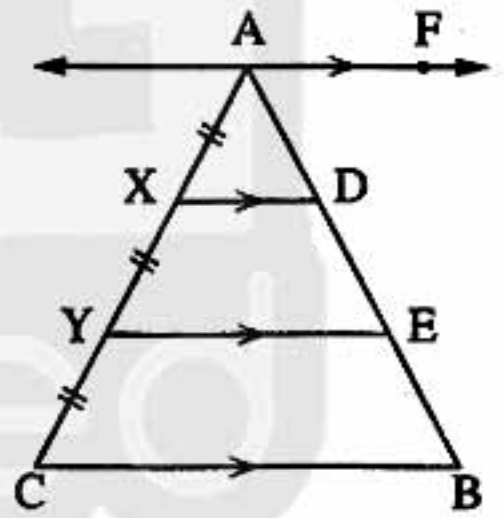
5 In the opposite figure :

 $\overrightarrow{AF} \parallel \overrightarrow{XD} \parallel \overrightarrow{YE} \parallel \overrightarrow{CB}$, $AX = XY = YC$, then $AD : AB = \dots\dots\dots$

(a) 1 : 1 (b) 1 : 2 (c) 1 : 3

6 If $\triangle ABC \equiv \triangle LMN$, then $m(\angle ACB) = m(\angle \dots\dots\dots)$

(a) LMN (b) MLN (c) LNM (d) NLM



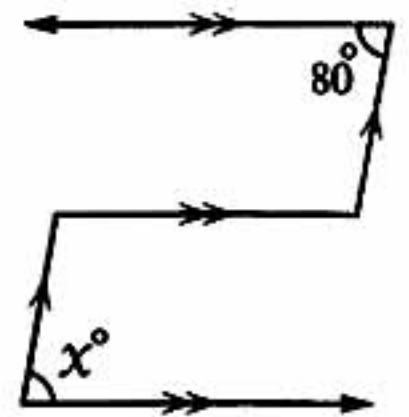
2 Complete :

1 If the ratio between the measures of two adjacent supplementary angles is 1 : 2 , then the measure of the largest angle is°

2 If $m(\angle A) = 120^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots^\circ$

3 Two triangles are congruent if each side of

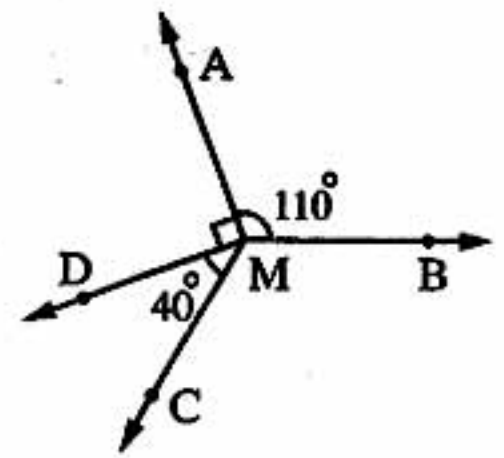
4 From the opposite figure :

 $x = \dots\dots\dots^\circ$ 

هذا العمل حصري على موقع ذاكرولي التعليمي ويسمح بمشاركته فقط ولا يسمح بتداوله على أي مواقع أخرى
 للمزيد من أعمالنا الحصرية تفضل بزيارة موقعنا الإلكتروني من هنا <https://www.zakrooly.com>

5 From the opposite figure :

$m(\angle BMC) = \dots\dots\dots^\circ$



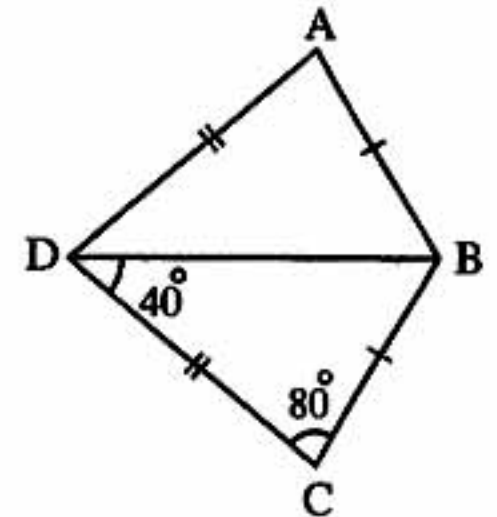
3 [a] In the opposite figure :

$AB = BC, AD = CD$

$m(\angle C) = 80^\circ$

$m(\angle BDC) = 40^\circ$

Prove that : $\triangle CBD \equiv \triangle ABD$ and find : $m(\angle ABD)$

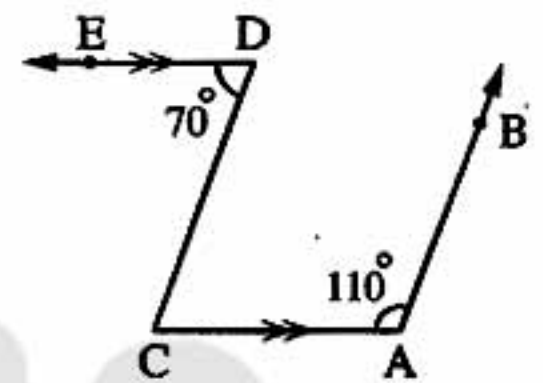


[b] In the opposite figure :

$\vec{DE} \parallel \vec{AC}, m(\angle A) = 110^\circ$

$m(\angle D) = 70^\circ$

Prove that : $\vec{AB} \parallel \vec{CD}$



4 [a] In each of the following figures , find the value of X and give reason to your answer :

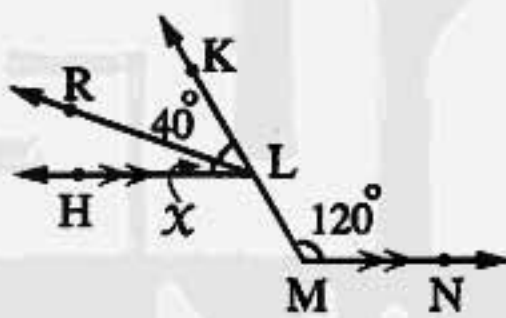


Fig. (1)

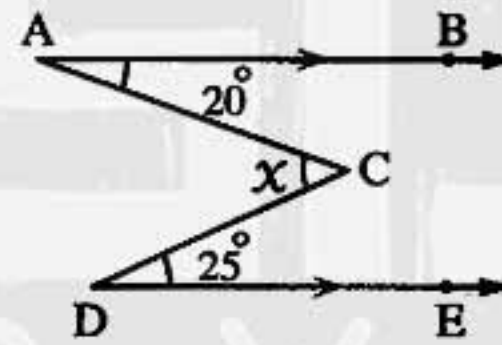


Fig. (2)

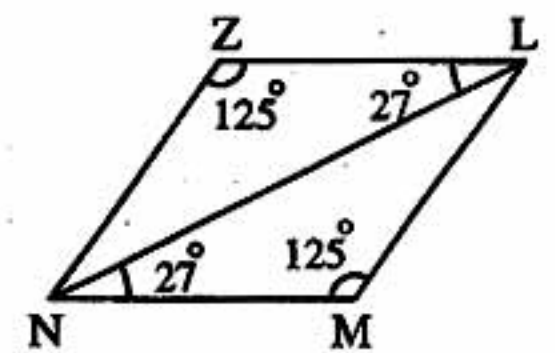
[b] Draw any acute-angled triangle , construct the perpendicular bisector of each side. Do the perpendicular bisectors intersect at one point ?

5 [a] From the opposite figure :

Prove that :

The two triangles LMN and NZL are congruent

, then find : $m(\angle LNZ)$



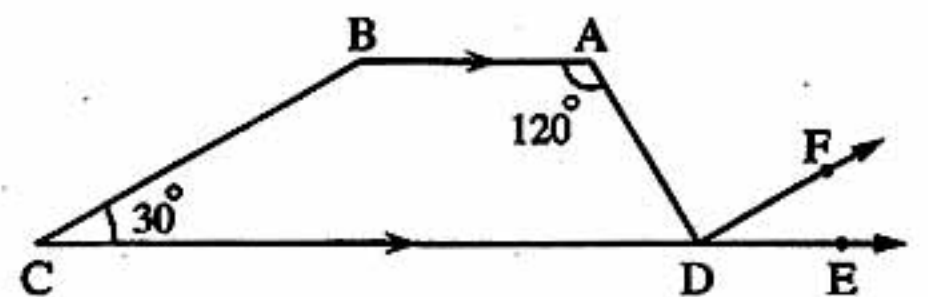
[b] In the opposite figure :

$\vec{AB} \parallel \vec{CE}, m(\angle BAD) = 120^\circ$

$m(\angle BCD) = 30^\circ$

$m(\angle BAD)$ is four times $m(\angle FDE)$

Prove that : $\vec{DF} \parallel \vec{BC}$ and $\vec{DF} \perp \vec{AD}$



2

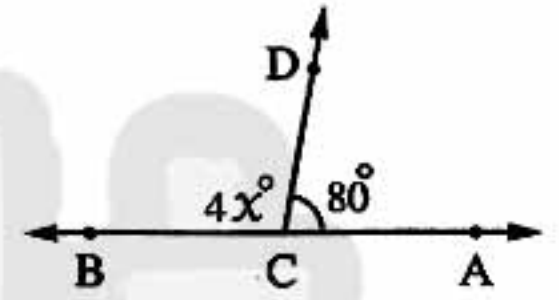
Cairo Governorate

El-Zaitoun Educational Zone
El-Ma'eref Modern Language School

Answer the following questions :

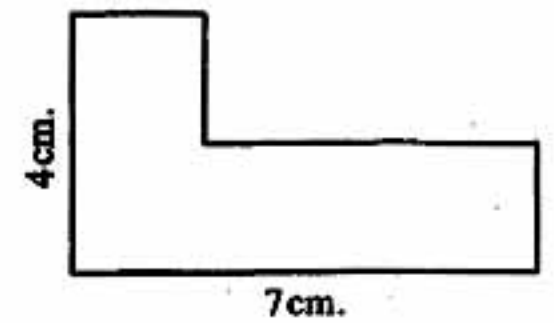
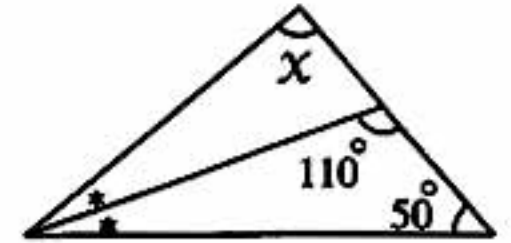
1 Choose the correct answer :

- 1 If two straight lines are perpendicular to a third , then the two straight lines are
- (a) perpendicular. (b) parallel. (c) congruent. (d) intersecting.
- 2 If $\triangle ABC \cong \triangle XYZ$, $m(\angle A) + m(\angle B) = 100^\circ$, then $m(\angle Z) = \dots\dots\dots$
- (a) 50° (b) 90° (c) 80° (d) 100°
- 3 The image of the point $(-3, 5)$ by translation of 3 units in the negative direction of the y-axis is
- (a) $(-3, 2)$ (b) $(-3, 8)$ (c) $(-6, 5)$ (d) $(0, 8)$
- 4 In the opposite figure :
 $\overrightarrow{BA} \cap \overrightarrow{CD} = \{C\}$
 $m(\angle DCA) = 80^\circ$
 , then $x = \dots\dots\dots$
- (a) 20° (b) 25° (c) 30° (d) 100°
- 5 If $\triangle ABC \cong \triangle XYZ$, $m(\angle A) = 50^\circ$, $m(\angle Y) = 60^\circ$
 , then $m(\angle C) = \dots\dots\dots$
- (a) 50° (b) 60° (c) 70° (d) 80°
- 6 The measure of the supplement of the angle whose measure is 30° equals
- (a) 60° (b) 180° (c) 90° (d) 150°



2 Complete the following :

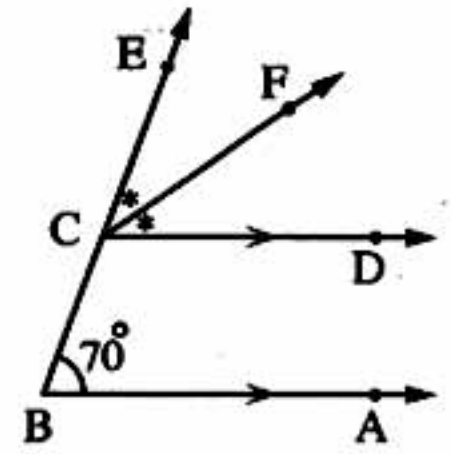
- 1 If a straight line intersects two parallel straight lines , then each two corresponding angles are
- 2 In the opposite figure :
 $x = \dots\dots\dots$
- 3 If $\angle X$ complements $\angle Y$ and $\angle X \cong \angle Y$
 , then $m(\angle X) = \dots\dots\dots^\circ$
- 4 The perimeter of the opposite figure is cm.
- 5 The two right-angled triangles are congruent if



3 [a] From the opposite figure , find :

$$m(\angle ECF)$$

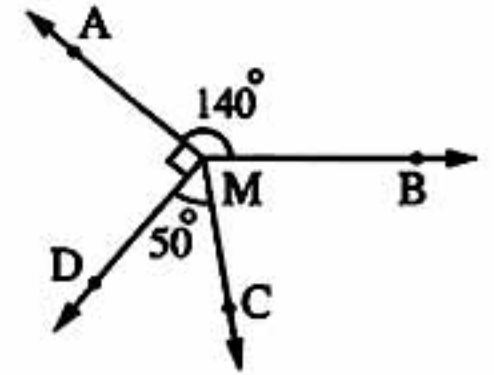
Give the reason.



[b] From the opposite figure , find :

$$m(\angle BMC)$$

With steps.

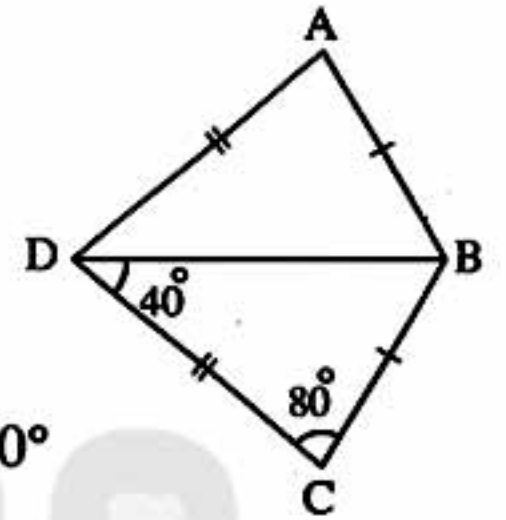


4 [a] In the opposite figure :

$$AB = BC, AD = CD, m(\angle C) = 80^\circ, m(\angle BDC) = 40^\circ$$

1 Prove that : $\triangle CBD \equiv \triangle ABD$

2 Find : $m(\angle ABD)$

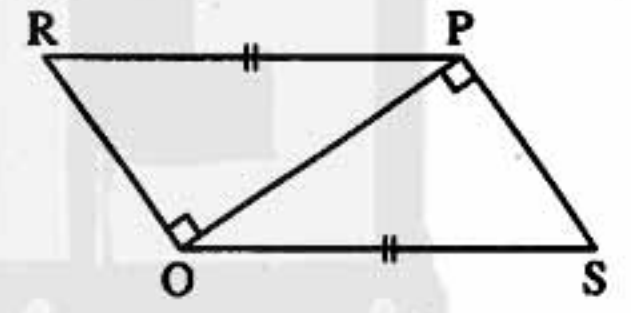


[b] By using your geometric instruments , draw $\angle ABC$ of measure 110° , then draw \overrightarrow{BF} to bisect the angle.

5 [a] From the opposite figure :

Prove that : 1 $\triangle ROP \equiv \triangle SPO$

2 $m(\angle RPS) = m(\angle SOR)$

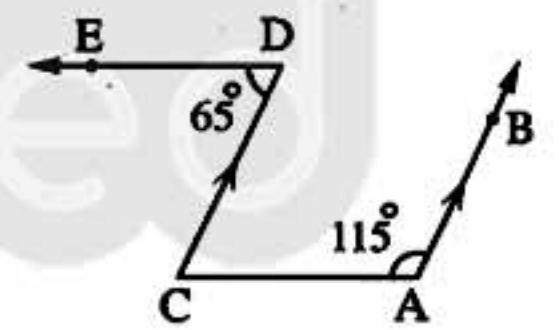


[b] In the opposite figure :

$$\text{If } \overrightarrow{AB} \parallel \overrightarrow{CD}, m(\angle D) = 65^\circ, m(\angle A) = 115^\circ$$

, then prove that :

$$\overrightarrow{AC} \parallel \overrightarrow{DE}$$



3

Cairo Governorate

Zone Educative Abdine
Lycee Bab El-Louk

Answer the following questions :

1 Choose the correct answer :

1 If $\angle X$ complements $\angle Y$ and $\angle X \equiv \angle Y$, then $m(\angle X) = \dots\dots\dots$

(a) 45° (b) 90° (c) 180° (d) 360°

2 If $\triangle ABC \equiv \triangle XYZ$, $m(\angle A) + m(\angle B) = 100^\circ$, then $m(\angle Z) = \dots\dots\dots$

(a) 50° (b) 80° (c) 90° (d) 100°



هذا العمل حصري على موقع ذاكرولى التعليمي ويسمح بمشاركته فقط ولا يسمح بتداوله على أي مواقع أخرى للمزيد من أعمالنا الحصرية تفضل بزيارة موقعنا الإلكتروني من هنا <https://www.zakrooly.com>

- 3 If two straight lines are perpendicular to a third , then the two straight lines are
- (a) perpendicular. (b) parallel. (c) congruent. (d) intersecting.
- 4 The sum of the measures of the accumulative angles at a point is
- (a) 630° (b) 180° (c) 90° (d) 360°
- 5 The measure of the supplement of the angle whose measure is 30° equals
- (a) 60° (b) 180° (c) 150° (d) 90°
- 6 The angle whose measure is more than 90° and less than 180° is angle.
- (a) an obtuse (b) an acute (c) a right (d) a straight

2 Complete the following :

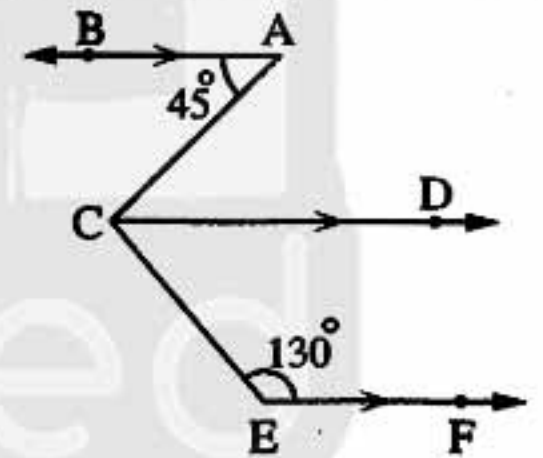
- 1 The two triangles are congruent if two sides and are congruent with the corresponding parts of the other.
- 2 If $\triangle ABC \cong \triangle XYZ$, then $m(\angle Z) = m(\angle \dots\dots\dots)$
- 3 The sum of the measures of the accumulative angles at a point equals $^\circ$
- 4 If $m(\angle A) = 110^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots^\circ$
- 5 The two adjacent angles formed by intersecting of a straight line and a ray are

3 [a] In the opposite figure :

$$\overrightarrow{AB} \parallel \overrightarrow{CD} \parallel \overrightarrow{EF} , m(\angle A) = 45^\circ$$

$$, m(\angle E) = 130^\circ$$

$$\text{Find : } m(\angle ACE)$$

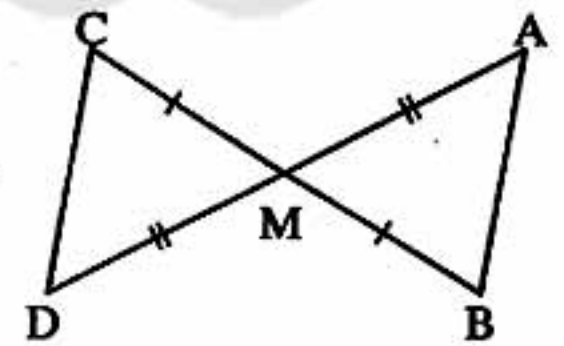


[b] In the opposite figure :

$$\overline{AD} \cap \overline{BC} = \{M\} , BM = MC , AM = MD$$

, write the conditions

for $\triangle AMB$, $\triangle DMC$ to be congruent.

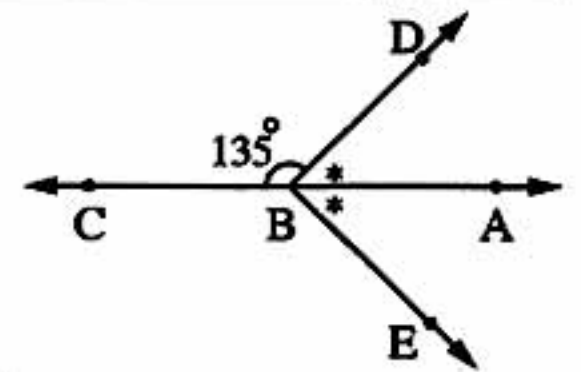


4 [a] In the opposite figure :

$$\text{If } B \in \overline{AC} , m(\angle DBC) = 135^\circ$$

and \overline{BA} bisects $\angle DBE$

$$\text{Find : } \textcircled{1} m(\angle ABD) \quad \textcircled{2} m(\angle DBE) \quad \textcircled{3} m(\angle CBE)$$



- [b] By using your geometric instruments , draw $\angle ABC$ whose measure is 130° , then draw \overline{BF} to bisect the angle.

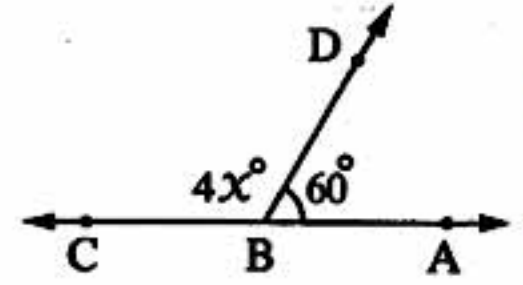
5 [a] In the opposite figure :

$$\overrightarrow{AC} \cap \overrightarrow{BD} = \{B\}$$

$$, m(\angle ABD) = 60^\circ$$

$$, m(\angle DBC) = 4x^\circ$$

Find in degrees : The value of x

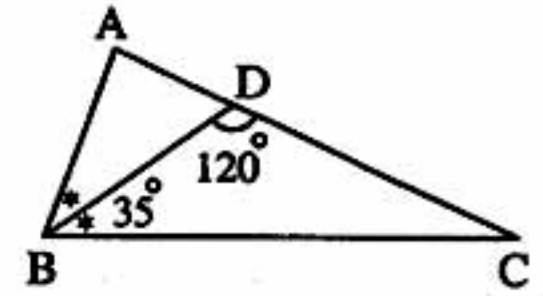


[b] In the opposite figure :

$$\overrightarrow{BD} \text{ bisects } \angle ABC, m(\angle DBC) = 35^\circ$$

$$, m(\angle BDC) = 120^\circ$$

Find : $m(\angle A)$ in degrees.



4

Giza Governorate

El-Haram Zone
El-Maarefa Exp. Lang. School



Answer the following questions :



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1 Choose the correct answer :

1 If $\triangle ABC \cong \triangle XYZ$, $m(\angle A) = 50^\circ$, $m(\angle B) = 60^\circ$, then $m(\angle Z) = \dots\dots\dots$

- (a) 50° (b) 60° (c) 70° (d) 120°

2 The sum of measures of the accumulative angles at a point equals $\dots\dots\dots$

- (a) 180° (b) 630° (c) 360° (d) 603°

3 The angle whose measure is $78^\circ 60'$, is $\dots\dots\dots$ angle.

- (a) a right (b) an acute (c) an obtuse (d) a straight

4 If $\angle A \cong \angle B$ and $\angle A$ complements $\angle B$, then $m(\angle A) = \dots\dots\dots$

- (a) 45° (b) 90° (c) 100° (d) 180°

5 If two straight lines are parallel to a third straight line , then they are $\dots\dots\dots$

- (a) perpendicular. (b) parallel. (c) congruent. (d) intersecting.

6 The measure of the supplement of an angle of measure 35° equals $\dots\dots\dots$

- (a) 65° (b) 165° (c) 180° (d) 145°

2 Complete the following :

1 The perpendicular bisector of a line segment is called $\dots\dots\dots$

2 If $m(\angle A) = 160^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots^\circ$

3 The two adjacent angles formed by a straight line and a ray with a start point on this straight line are $\dots\dots\dots$



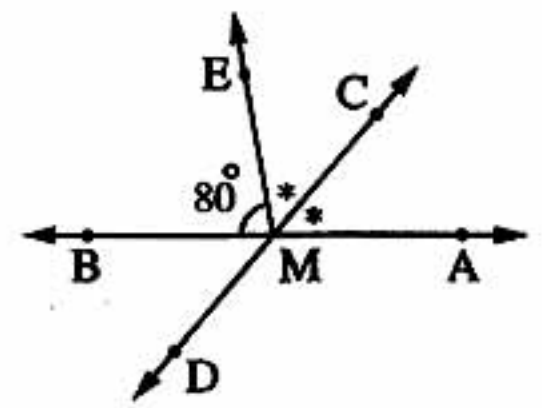
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للمزيد من أعمالنا الحصرية تفضل بزيارة موقعنا الإلكتروني من هنا <https://www.zakrooly.com>

- 4 If two straight lines intersect , then each two vertically opposite angles are
- 5 If $L_1 \perp L_2$ and $L_2 \parallel L_3$, then $L_1 \dots\dots\dots L_3$

3 [a] In the opposite figure :

$\overrightarrow{AB} \cap \overrightarrow{CD} = \{M\}$, $m(\angle BME) = 80^\circ$
 , \overrightarrow{MC} bisects $\angle AME$

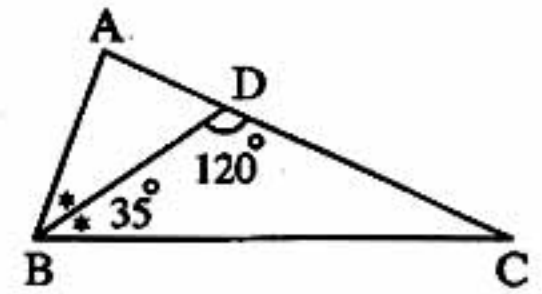
Find : 1 $m(\angle AMC)$ 2 $m(\angle BMD)$



[b] In the opposite figure :

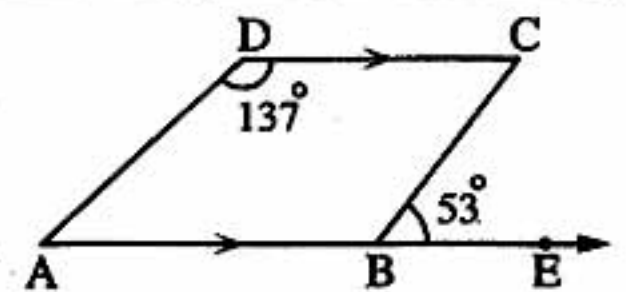
\overrightarrow{BD} bisects $\angle ABC$, $m(\angle DBC) = 35^\circ$
 , $m(\angle BDC) = 120^\circ$

Find : $m(\angle A)$ in degrees.



4 [a] In the opposite figure :

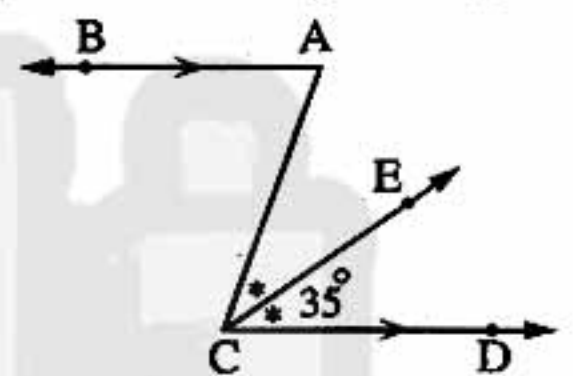
$\overrightarrow{AB} \parallel \overrightarrow{DC}$, $m(\angle EBC) = 53^\circ$, $m(\angle D) = 137^\circ$
 Is $\overrightarrow{BC} \parallel \overrightarrow{AD}$? "State the reason"



[b] In the opposite figure :

$\overrightarrow{AB} \parallel \overrightarrow{CD}$, \overrightarrow{CE} bisects $\angle ACD$
 , $m(\angle DCE) = 35^\circ$

Find : $m(\angle A)$

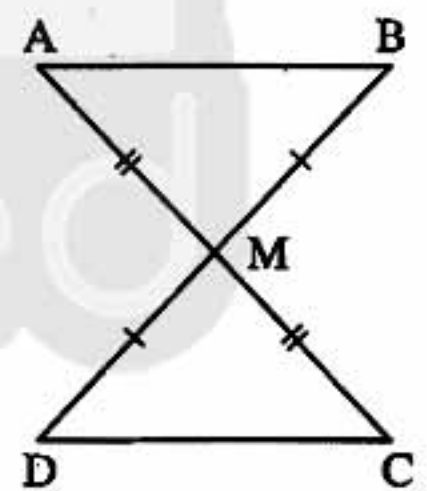


5 [a] Draw $\angle ABC$ of measure 85° , then bisect it. (Don't remove the arcs)

[b] In the opposite figure :

$AM = CM$
 , $BM = DM$

Show with the reason if $\triangle ABM \cong \triangle CDM$ or not.



5 Giza Governorate

Boulaq El-Dakrour Dire. of Edu.
 Dar El-Hanan Lang. Sch. for Girls



Answer the following questions :

1 Choose the correct answer :

- 1 The supplement of the angle whose measure is 30° is an angle whose measure is
 (a) 60° (b) 180° (c) 150° (d) 90°
- 2 If $\triangle ABC \cong \triangle XYZ$ and $m(\angle A) + m(\angle B) = 110^\circ$, then $m(\angle Z) = \dots\dots\dots$
 (a) 50° (b) 60° (c) 70° (d) 80°

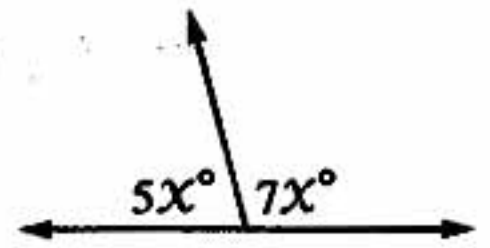


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3 From the opposite figure :

The value of $x = \dots\dots\dots$

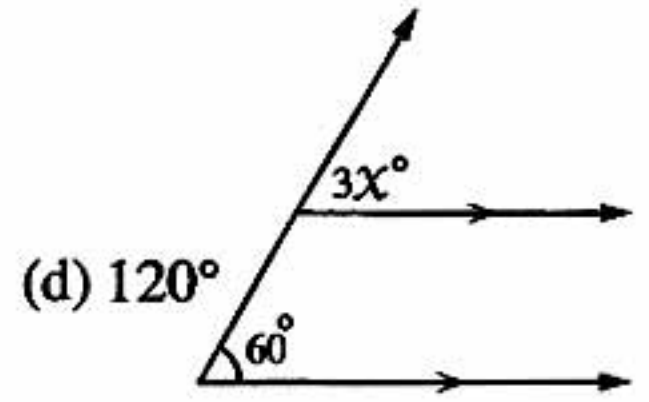
- (a) 30° (b) 15°
- (c) 45° (d) 18°



4 From the opposite figure :

$x = \dots\dots\dots$

- (a) 20° (b) 30° (c) 40° (d) 120°



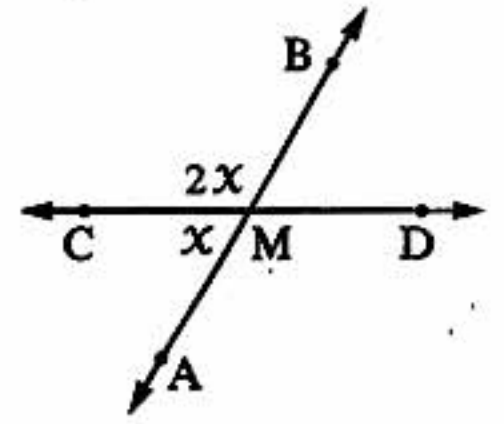
5 The angle of measure 179° is

- (a) acute. (b) obtuse. (c) right. (d) straight.

6 In the opposite figure :

$\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$, then $x = \dots\dots\dots$

- (a) 30° (b) 60°
- (c) 45° (d) 90°



2 Complete the following :

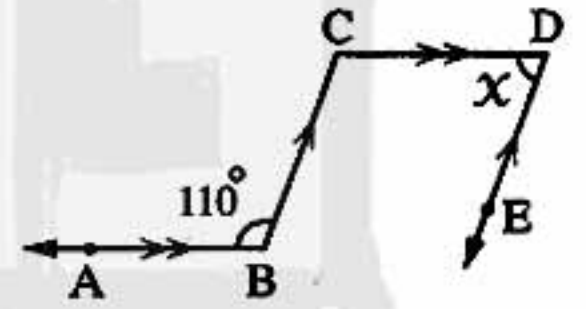
1 The complement of an angle of measure 65° is an angle of measure

2 If $m(\angle B) = 160^\circ$, then $m(\text{reflex } \angle B) = \dots\dots\dots^\circ$

3 In the opposite figure :

$\overleftrightarrow{CD} \parallel \overleftrightarrow{BA}$, $\overleftrightarrow{DE} \parallel \overleftrightarrow{CB}$

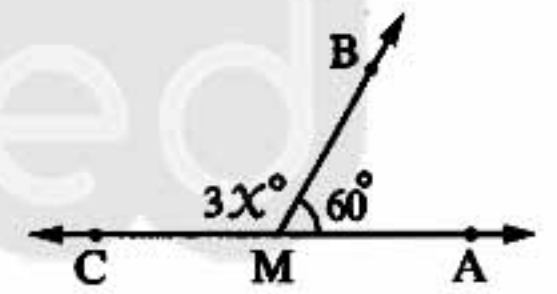
, then $x = \dots\dots\dots^\circ$



4 In the opposite figure :

If $\overleftrightarrow{MB} \cap \overleftrightarrow{AC} = \{M\}$, $m(\angle AMB) = 60^\circ$

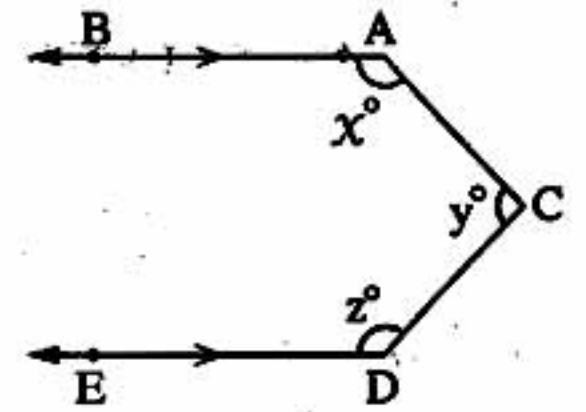
, then the value of x equals



5 In the opposite figure :

$\overleftrightarrow{AB} \parallel \overleftrightarrow{DE}$

, then $x + y + z = \dots\dots\dots$



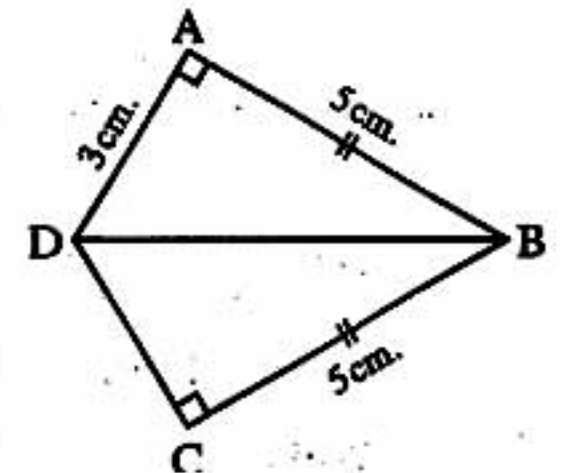
3 [a] In the opposite figure :

$m(\angle A) = m(\angle C) = 90^\circ$

, $AB = BC = 5 \text{ cm.}$, $AD = 3 \text{ cm.}$

1 Mention the conditions for ΔABD , ΔCBD to be congruent.

2 Find : The length of \overline{CD} .

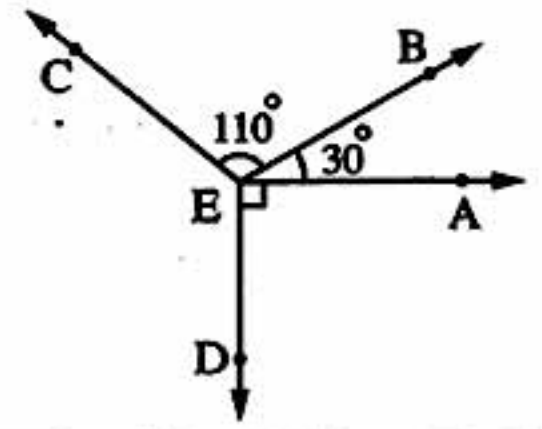


[b] In the opposite figure :

$m(\angle AEB) = 30^\circ$, $m(\angle BEC) = 110^\circ$

, $m(\angle AED) = 90^\circ$

Find : $m(\angle DEC)$



4 [a] In the opposite figure :

$B \in \overleftrightarrow{AC}$, $m(\angle FBC) = 30^\circ$

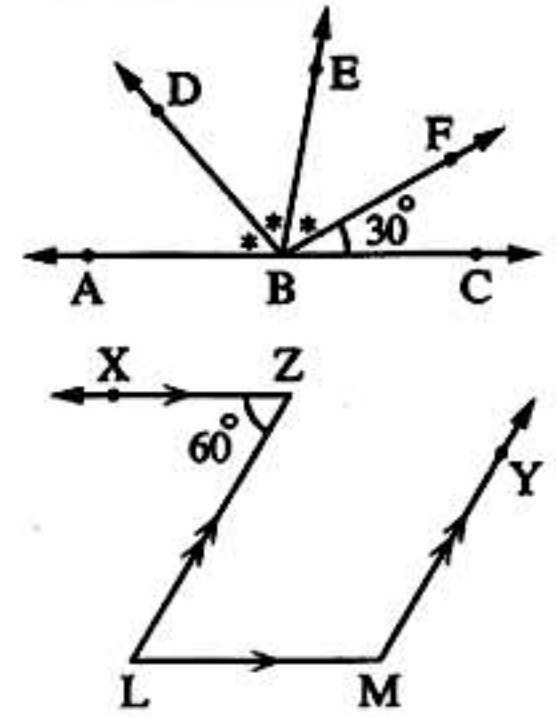
, $m(\angle ABD) = m(\angle DBE) = m(\angle EBF)$

Find : $m(\angle ABE)$

[b] In the opposite figure :

$\overleftrightarrow{ZX} \parallel \overleftrightarrow{LM}$, $\overleftrightarrow{LZ} \parallel \overleftrightarrow{MY}$, $m(\angle Z) = 60^\circ$

Find : ① $m(\angle L)$ ② $m(\angle M)$



5 [a] In the opposite figure :

\overleftrightarrow{BD} bisects $\angle ABC$, $m(\angle DBC) = 35^\circ$

, $m(\angle BDC) = 120^\circ$

Find : $m(\angle A)$

[b] In the opposite figure :

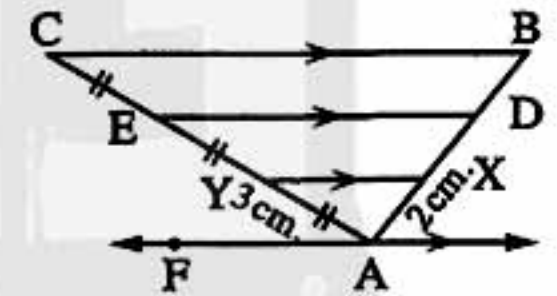
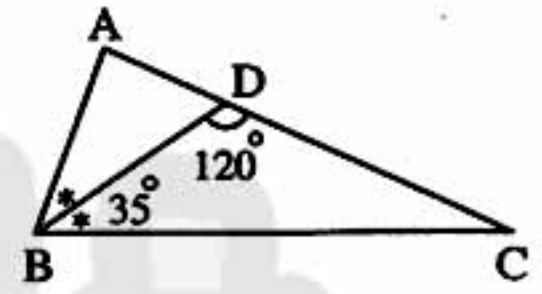
$\overleftrightarrow{AF} \parallel \overleftrightarrow{XY} \parallel \overleftrightarrow{DE} \parallel \overleftrightarrow{BC}$ and $AY = YE = EC$, $AY = 3$ cm.

, $AX = 2$ cm. and the perimeter of $\triangle ABC = 23$ cm.

Find : The length of \overline{BC}

[c] Draw $\angle ABC$ of measure 100° and bisect it.

(Don't remove the arcs)



6

Alexandria Governorate

East Educational Zone
Sidi Gaber Lang. Sch. for boys



Answer the following questions :

1 Complete the following :

- ① If $m(\angle A) = 120^\circ$, then the measure of the reflex angle of $\angle A = \dots\dots\dots^\circ$
 - ② The two adjacent angles formed by intersecting a straight line and a ray are
 - ③ If $\angle A$ supplements $\angle B$ and $\angle A$ supplements $\angle C$
 , then $\angle B$ and $\angle C$ are
 - ④ Two triangles are congruent if the lengths of two sides and the measure of
- are congruent with the corresponding parts of the other.



هذا العمل حصري على موقع ذاكرولى التعليمي ويسمح بمشاركته فقط ولا يسمح بتداوله على أي مواقع أخرى للمزيد من أعمالنا الحصرية تفضل بزيارة موقعنا الإلكتروني من هنا <https://www.zakrooly.com>

5 If $\angle A$ and $\angle B$ are complementary angles , $m(\angle A) = 2 m(\angle B)$, then $m(\angle B) = \dots\dots\dots^\circ$

2 Choose the correct answer :

1 If two straight lines are perpendicular to a third , then the two straight lines are

- (a) perpendicular. (b) congruent. (c) parallel. (d) intersecting.

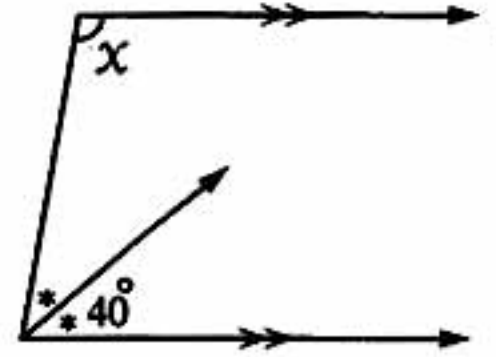
2 The axis of symmetry of a line segment is

- (a) perpendicular from its midpoint. (b) equal to it.
(c) parallel to it. (d) congruent to it.

3 In the opposite figure :

$x = \dots\dots\dots^\circ$

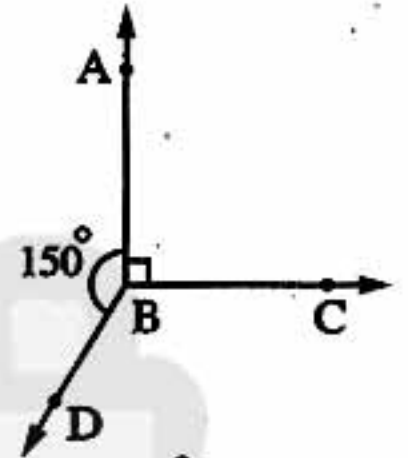
- (a) 80 (b) 120
(c) 100 (d) 180



4 In the opposite figure :

$m(\angle CBD) = \dots\dots\dots^\circ$

- (a) 100 (b) 120
(c) 140 (d) 240

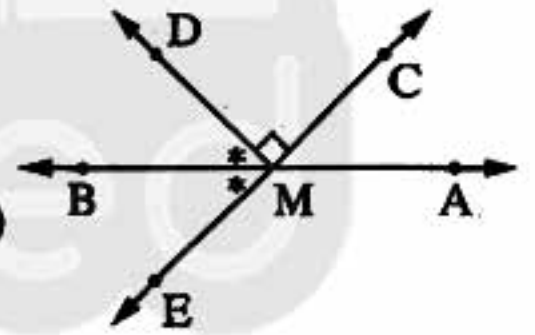


5 If $\triangle ABC \cong \triangle XYZ$, $m(\angle Z) = 55^\circ$, then $m(\angle A) + m(\angle B) = \dots\dots\dots^\circ$
(a) 110 (b) 115 (c) 120 (d) 125

3 [a] In the opposite figure :

$\vec{AB} \cap \vec{CE} = \{M\}$, $\vec{MD} \perp \vec{MC}$, \vec{MB} bisects $\angle DME$

Find showing the reason : 1 $m(\angle BME)$ 2 $m(\angle AMC)$
3 $m(\angle AME)$

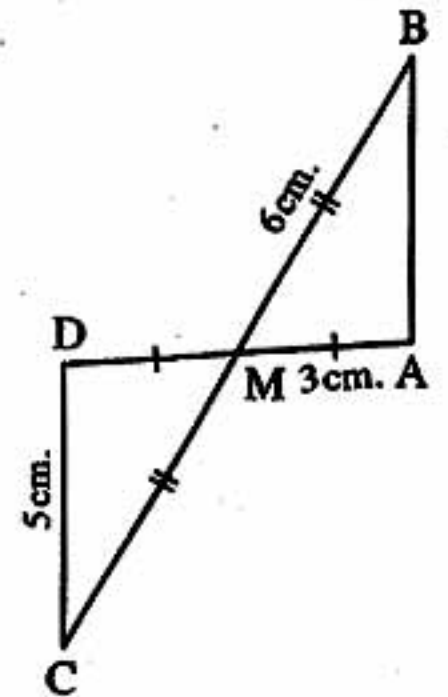


[b] Draw the line segment AB of length 8 cm. , then construct the axis of symmetry of \overline{AB} (Don't remove the arcs)

4 [a] In the opposite figure :

Complete :

- 1 $\triangle ABM \cong \triangle \dots\dots\dots$
2 $m(\angle B) = m(\angle \dots\dots\dots)$
3 $m(\angle A) = m(\angle \dots\dots\dots)$
4 The perimeter of $\triangle DMC = \dots\dots\dots$ cm.



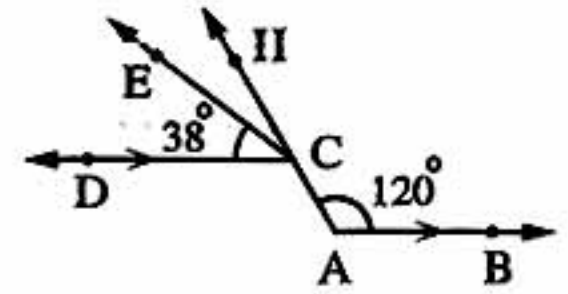
هذا العمل حصري على موقع ذاكرولى التعليمي ويسمح بمشاركته فقط ولا يسمح بتداوله على أي مواقع أخرى للمزيد من أعمالنا الحصرية تفضل بزيارة موقعنا الإلكتروني من هنا <https://www.zakrooly.com>

[b] In the opposite figure :

$$\overline{AB} \parallel \overline{DC}, m(\angle A) = 120^\circ, H \in \overline{AC}$$

$$, m(\angle ECD) = 38^\circ$$

Find : $m(\angle ACD)$, $m(\angle HCE)$ (showing the reason)



5 In the opposite figure :

\overline{OR} is the axis of symmetry of the shape NERAM , $O \in \overline{MN}$

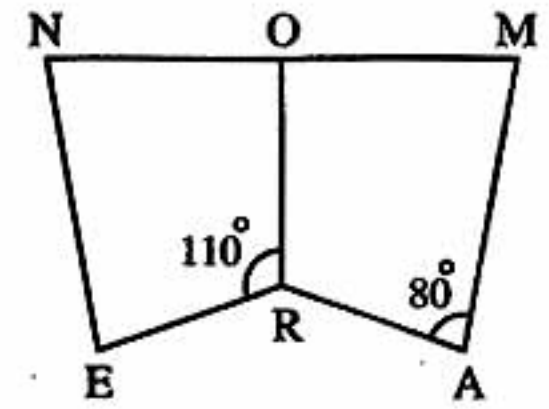
Complete : 1 Quad AMOR \equiv Quad

2 $m(\angle NOR) = m(\angle \dots\dots\dots)$

3 $m(\angle AMO) = m(\angle \dots\dots\dots)$

4 $m(\angle ORA) = m(\angle \dots\dots\dots) = \dots\dots\dots^\circ$

5 $m(\angle NER) = m(\angle \dots\dots\dots) = \dots\dots\dots^\circ$



7

Alexandria Governorate

Borg El-Arab Educational Zone
Al-Safwa Integrated Schools

Answer the following questions : (Calculator is allowed)

1 Complete each of the following :

1 The complement of the angle of measure 55° is an angle of measure

2 The sum of measures of the accumulative angles at a point equals

3 If $m(\angle B) = 160^\circ$, then $m(\text{reflex } \angle B) = \dots\dots\dots^\circ$

4 The perpendicular bisector of a line segment is called

5 The number of triangles in the opposite figure is



2 Choose the correct answer :

1 If $L_1 \parallel L_2$ and $L_2 \perp L_3$, then

(a) $L_1 \perp L_2$

(b) $L_3 \parallel L_2$

(c) $L_1 \perp L_3$

(d) $L_3 \parallel L_1$

2 If $\triangle ABC \equiv \triangle XYZ$ and $m(\angle A) + m(\angle B) = 110^\circ$, then $m(\angle Z) = \dots\dots\dots^\circ$

(a) 50

(b) 60

(c) 70

(d) 80

3 If the ratio between the measures of two supplementary angles is 5 : 13 , then the measure of the smaller angle is

(a) 50

(b) 130

(c) 150

(d) 180°

4 The type of the angle of measure $89^\circ 60'$ is

(a) acute.

(b) obtuse.

(c) right.

(d) reflex.



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- 5 The two diagonals are perpendicular and equal in length in the
- (a) rectangle. (b) rhombus. (c) square. (d) parallelogram.
- 6 If $\triangle ABC \cong \triangle LMN$, then \overline{AC} \overline{LN}
- (a) = (b) \cong (c) < (d) >

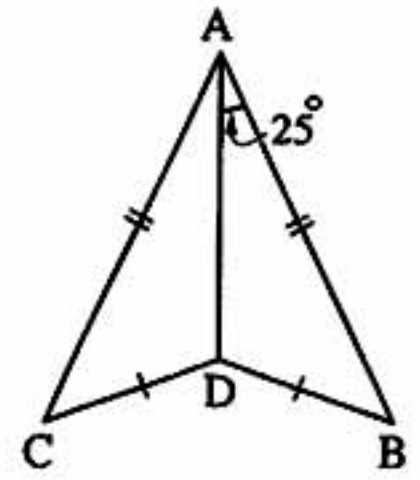
3 [a] In the opposite figure :

$AB = AC$, $BD = CD$

$m(\angle BAD) = 25^\circ$

Is $\triangle ADC \cong \triangle ADB$? Why?

Find : $m(\angle CAB)$



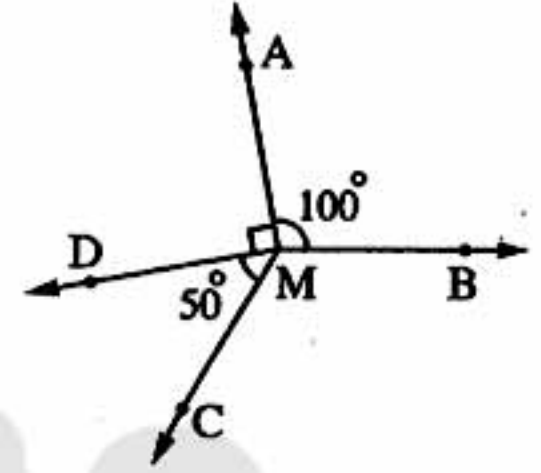
[b] In the opposite figure :

$m(\angle BMA) = 100^\circ$

$m(\angle AMD) = 90^\circ$

$m(\angle DMC) = 50^\circ$

Find with steps : $m(\angle BMC)$

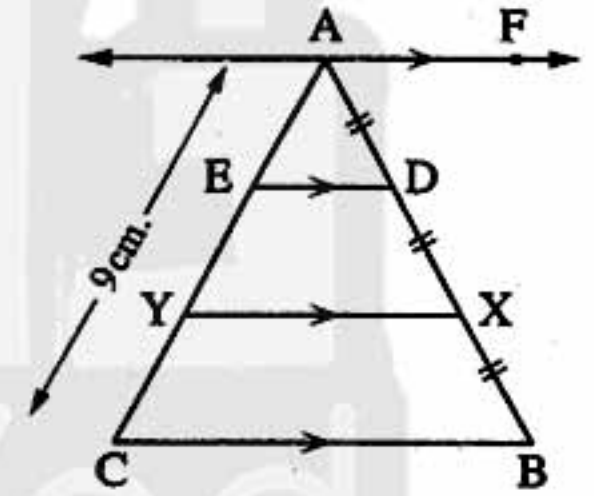


4 [a] In the opposite figure :

$\overline{AF} \parallel \overline{ED} \parallel \overline{YX} \parallel \overline{CB}$

$AD = DX = XB$, $AC = 9$ cm.

Find : The length of \overline{AY} (Give reason)



[b] Draw $\angle ABC$ of measure 100° and bisect it.

5 [a] In the opposite figure :

$\overline{ZX} \parallel \overline{LM}$

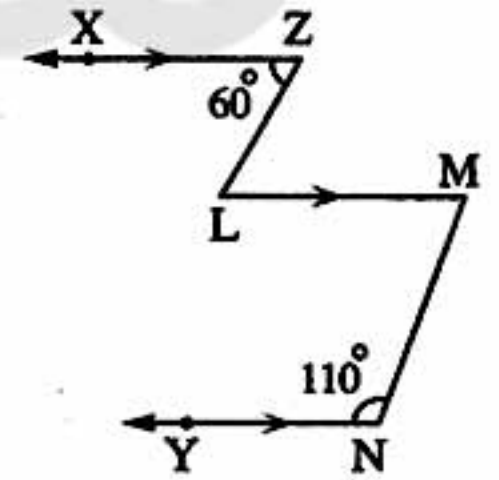
$\overline{LM} \parallel \overline{NY}$

$m(\angle N) = 110^\circ$

$m(\angle Z) = 60^\circ$

Find : 1 $m(\angle L)$

2 $m(\angle M)$



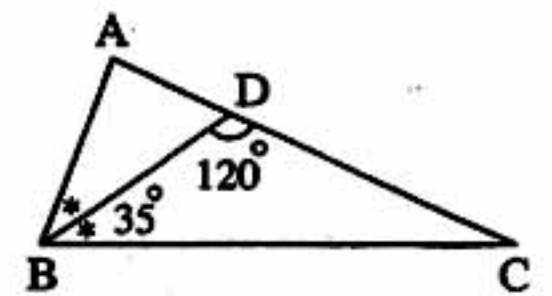
[b] In the opposite figure :

\overline{BD} bisects $\angle ABC$

$m(\angle DBC) = 35^\circ$

$m(\angle BDC) = 120^\circ$

Find : $m(\angle A)$



8

El-Kalyoubia Governorate

Directorate of Education
Mathematics Supervision

Answer the following questions :

1 Choose the correct answer :

- 1 If $\triangle ABC \cong \triangle XYZ$, then $AC = \dots\dots\dots$
 (a) XY (b) XZ (c) YZ (d) AB
- 2 If $m(\angle B) = 105^\circ$, then $m(\text{reflex } \angle B) = \dots\dots\dots$
 (a) 255° (b) 75° (c) 105° (d) 50°
- 3 If $\overline{AB} \cong \overline{CD}$ and $AB = 4 \text{ cm.}$, then $AB + 2 CD = \dots\dots\dots \text{ cm.}$
 (a) 10 (b) 4 (c) 8 (d) 12
- 4 The measure of the supplementary of the angle whose measure is 30° equals $\dots\dots\dots^\circ$
 (a) 60 (b) 80 (c) 150 (d) 90
- 5 A cube is of volume 125 cm^3 , then the area of its base = $\dots\dots\dots \text{ cm}^2$
 (a) 5 (b) 15 (c) 25 (d) 10
- 6 The measure of the right angle is $\dots\dots\dots^\circ$
 (a) 60 (b) 90 (c) 180 (d) 70

2 Complete the following :

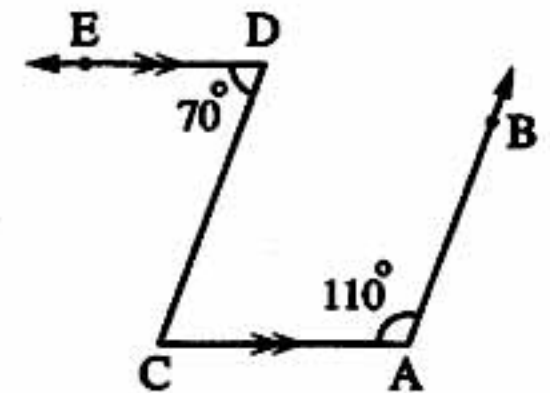
- 1 The two diagonals are equal in length in $\dots\dots\dots$ and $\dots\dots\dots$
- 2 The perpendicular bisector of a line segment is called $\dots\dots\dots$
- 3 The sum of the measures of the accumulative angles at a point equals $\dots\dots\dots^\circ$
- 4 If $\triangle ABC \cong \triangle XYZ$, $m(\angle A) + m(\angle B) = 100^\circ$, then $m(\angle Z) = \dots\dots\dots^\circ$
- 5 If two straight lines are perpendicular to a third , then the two straight lines are $\dots\dots\dots$

3 [a] In the opposite figure :

 $\overline{DE} \parallel \overline{AC}$, $m(\angle A) = 110^\circ$, $m(\angle D) = 70^\circ$

Complete the following :

- 1 $m(\angle C) = \dots\dots\dots$ because $\dots\dots\dots$
- 2 Is $\overline{AB} \parallel \overline{CD}$? ($\dots\dots\dots$) because $\dots\dots\dots$



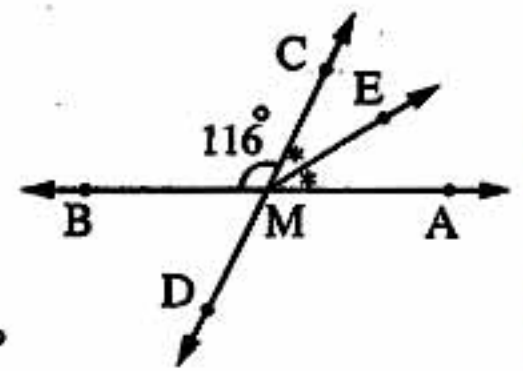
- [b] Using the geometric instruments , draw $\angle ABC$ where $m(\angle B) = 120^\circ$
 , then draw \overline{BD} to bisect the angle. (Don't remove the arcs)

4 [a] In the opposite figure :

$\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$, \overline{ME} bisects $\angle AMC$, $m(\angle BMC) = 116^\circ$

Complete the following :

- 1 $m(\angle AMC) = \dots\dots\dots^\circ$
- 2 $m(\angle AMD) = \dots\dots\dots^\circ$
- 3 $m(\angle AME) = \dots\dots\dots^\circ$

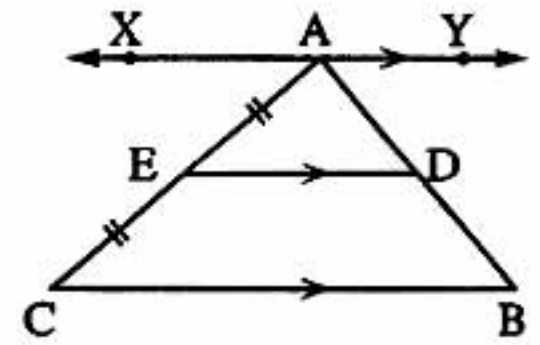


[b] In the opposite figure :

$\overleftrightarrow{XY} \parallel \overleftrightarrow{ED} \parallel \overleftrightarrow{BC}$, $AE = EC$

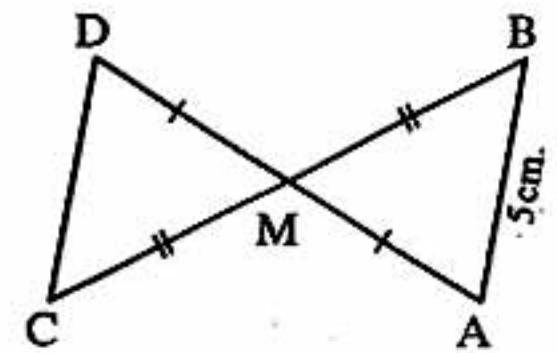
Complete the following :

- 1 $AD = \dots\dots\dots$
- 2 $AD : AB = \dots\dots\dots ; \dots\dots\dots$



5 [a] From the opposite figure complete the following :

- 1 $\triangle ABM \cong \triangle \dots\dots\dots$
- 2 $CD = \dots\dots\dots$ cm.
- 3 $m(\angle B) = m(\angle \dots\dots\dots)$



[b] Mention two cases of congruency of two triangles.

9 El-Sharkia Governorate

West Zagazig Zone
Zagazig English Lang. Sch. for Girls



Answer the following questions :

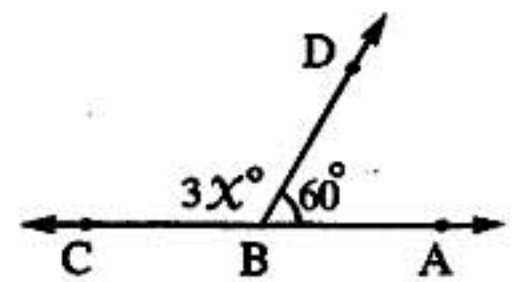
1 Choose the correct answer :

- 1 If $\angle X$ complements $\angle Y$ and $\angle X \cong \angle Y$, then $m(\angle X) = \dots\dots\dots^\circ$
(a) 45 (b) 90 (c) 20 (d) 180
- 2 A square is of perimeter 20 cm. , then its area = $\dots\dots\dots$ cm^2
(a) 4 (b) 5 (c) 25 (d) 400
- 3 The two diagonals are equal in length in the $\dots\dots\dots$
(a) rhombus. (b) parallelogram. (c) trapezium. (d) rectangle.

4 In the opposite figure :

$B \in \overleftrightarrow{AC}$, then $x = \dots\dots\dots$

- (a) 30 (b) 120
- (c) 40 (d) 150



5 If $m(\angle A) = 110^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots$

- (a) 70° (b) 360° (c) 250° (d) 150°



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6 In the opposite figure :

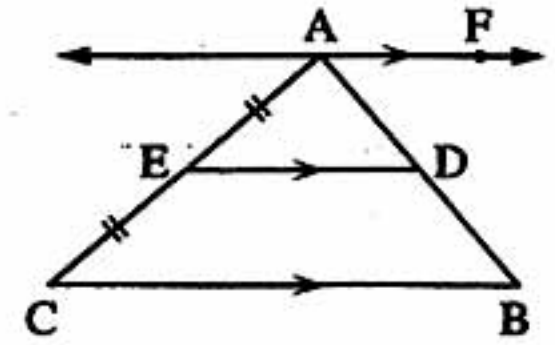
If $\overrightarrow{AF} \parallel \overrightarrow{ED} \parallel \overrightarrow{CB}$, $AE = EC$, then $AD : AB = \dots\dots\dots$

(a) 2 : 1

(b) 3 : 2

(c) 1 : 3

(d) 1 : 2



2 Complete each of the following :

1 If $\Delta ABC \cong \Delta XYZ$, $m(\angle A) + m(\angle B) = 120^\circ$, then $m(\angle Z) = \dots\dots\dots^\circ$

2 If a straight line intersects two parallel lines, then each two corresponding angles are $\dots\dots\dots$

3 If $\Delta ABC \cong \Delta XYZ$, then $AC = \dots\dots\dots$

4 Two right-angled triangles are congruent if $\dots\dots\dots$

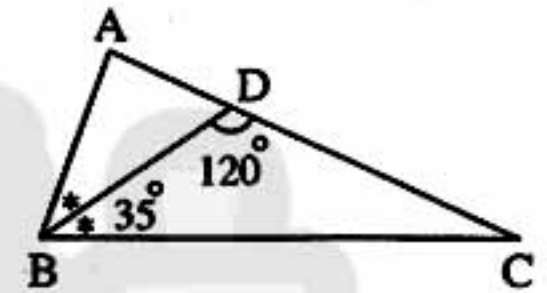
5 If two straight lines intersect, then the measures of each two vertically opposite angles are $\dots\dots\dots$

3 [a] In the opposite figure :

\overrightarrow{BD} bisects $\angle ABC$, $m(\angle DBC) = 35^\circ$

, $m(\angle BDC) = 120^\circ$

Find : $m(\angle C)$, $m(\angle ABC)$ and $m(\angle A)$



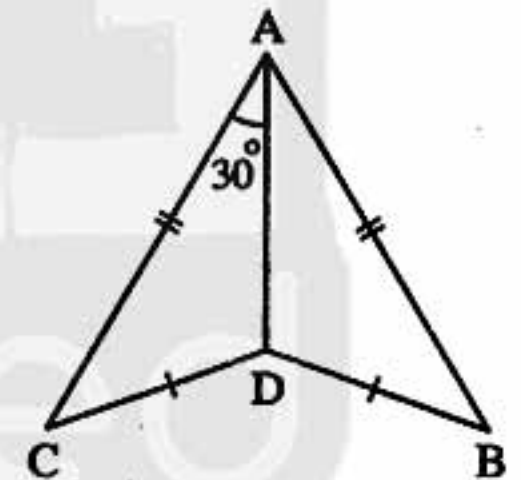
[b] In the opposite figure :

$AC = AB$, $DC = DB$

, $m(\angle CAD) = 30^\circ$

1 Prove that : $\Delta ABD \cong \Delta ACD$

2 Find : $m(\angle CAB)$



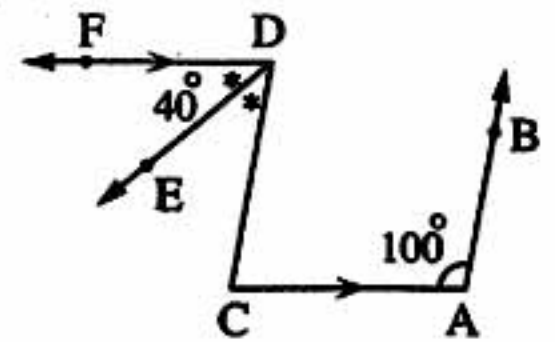
4 [a] In the opposite figure :

$\overrightarrow{DF} \parallel \overrightarrow{AC}$, $m(\angle A) = 100^\circ$

, \overrightarrow{DE} bisects $\angle FDC$, $m(\angle FDE) = 40^\circ$

1 Find : $m(\angle FDC)$ and $m(\angle C)$

2 Prove that : $\overrightarrow{CD} \parallel \overrightarrow{AB}$



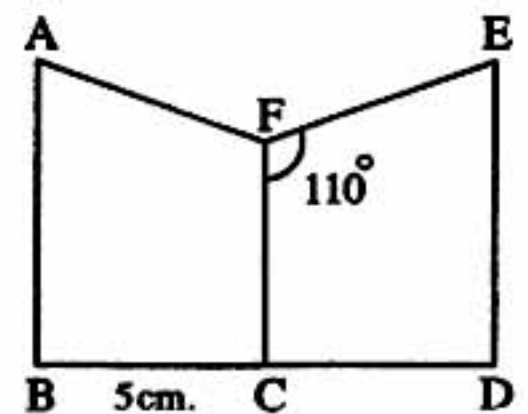
[b] In the opposite figure :

The polygon ABCF \cong the polygon EDCF

, $m(\angle EFC) = 110^\circ$, $BC = 5$ cm.

Find : 1 $m(\angle AFC)$, $m(\angle AFE)$ and $m(\angle FCB)$

2 The length of \overline{BD}

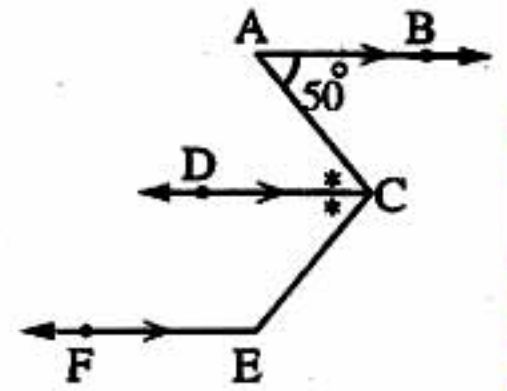


5 [a] In the opposite figure :

$\overline{AB} \parallel \overline{CD} \parallel \overline{EF}$, \overline{CD} bisects $\angle ACE$

, $m(\angle A) = 50^\circ$

Find : $m(\angle ACE)$ and $m(\angle E)$



[b] Using the ruler and compasses , draw the triangle ABC in which $BC = 6$ cm.

, $AB = AC = 5$ cm. Draw $\overline{AD} \perp \overline{BC}$ where $\overline{AD} \cap \overline{BC} = \{D\}$

(Don't remove the arcs)

10 El-Monofia Governorate

Kwesna Educational Directorate
Mathematics Supervision



Answer the following questions : (Calculator is permitted)

1 Choose the correct answer :

1 The sum of the measures of the accumulative angles at a point equals

(a) 90 (b) 180 (c) 270 (d) 360

2 If two triangles ABC and XYZ are congruent , then

(a) $BC = XZ$ (b) $YX = CA$ (c) $ZY = CB$ (d) $AB = YZ$

3 If a straight line intersects two parallel straight lines , then each two interior angles in the same side of the transversal are

(a) equal. (b) supplementary. (c) corresponding. (d) complementary.

4 If $\Delta ABC \cong \Delta XYZ$, $m(\angle A) + m(\angle B) = 115^\circ$, then $m(\angle Z) = \dots\dots\dots^\circ$

(a) 115 (b) 65 (c) 15 (d) 70

5 If $m(\angle A) = 90^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots$

(a) 270 (b) 180 (c) 90 (d) 360

6 If $\angle A$ supplements $\angle B$ and $\angle A \cong \angle B$, then $m(\angle B) = \dots\dots\dots^\circ$

(a) 45 (b) 90 (c) 120 (d) 60

2 Complete each of the following :

1 The angle whose measure is 40° complements an angle of measure

2 Two triangles are congruent if two sides and the in one of them are congruent to their corresponding parts of the other.

3 If two straight lines are perpendicular to a third line , then these two straight lines are

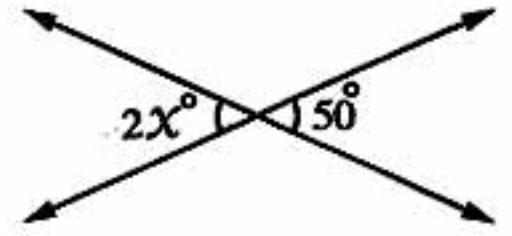
4 If $L_1 \parallel L_2$ and $L_1 \perp L_3$, then $L_3 \dots\dots\dots L_2$



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5 In the opposite figure :

$x = \dots\dots\dots$

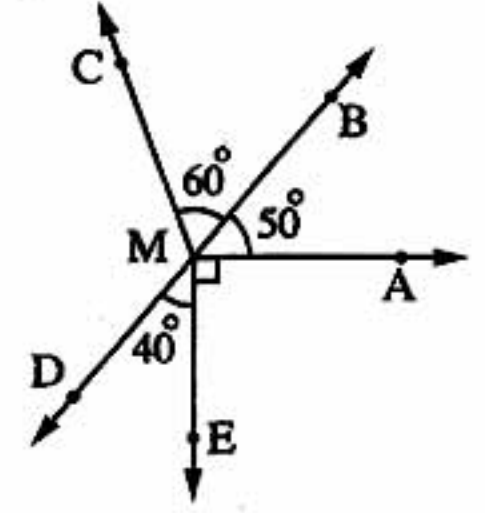


3 [a] In the opposite figure :

- $m(\angle AMB) = 50^\circ$
- , $m(\angle BMC) = 60^\circ$
- , $m(\angle DME) = 40^\circ$ and $\overrightarrow{MA} \perp \overrightarrow{ME}$

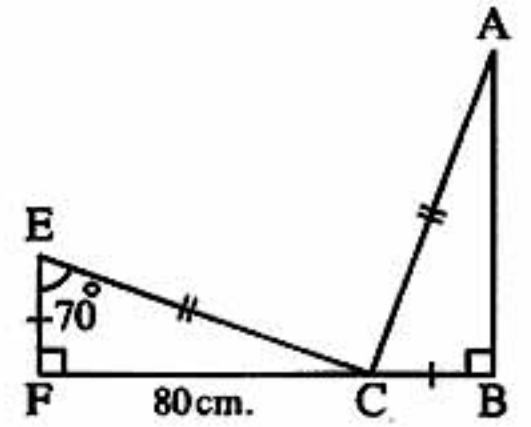
Find : $m(\angle DMC)$

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[b] In the opposite figure :

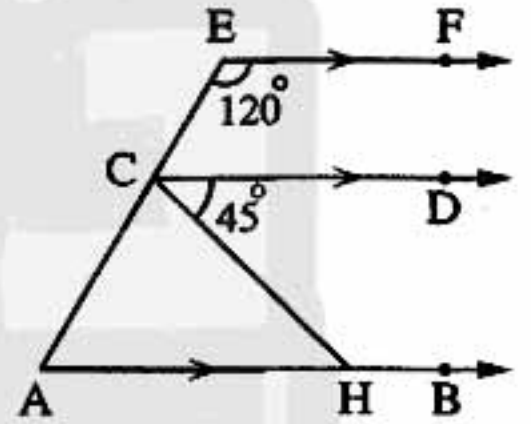
- $CB = FE$, $AC = EC$
 - , $m(\angle B) = m(\angle F) = 90^\circ$
 - , $m(\angle E) = 70^\circ$ and $FC = 80$ cm.
- Find : $m(\angle A)$ and the length of \overline{AB}



4 [a] Draw the angle ABC where $m(\angle B) = 130^\circ$, using the ruler and the compasses bisect $\angle B$

[b] In the opposite figure :

- $\overrightarrow{EF} \parallel \overrightarrow{CD} \parallel \overrightarrow{AB}$
 - , $m(\angle CEF) = 120^\circ$
 - , $m(\angle HCD) = 45^\circ$
- Find : The measures of the angles of $\triangle AHC$

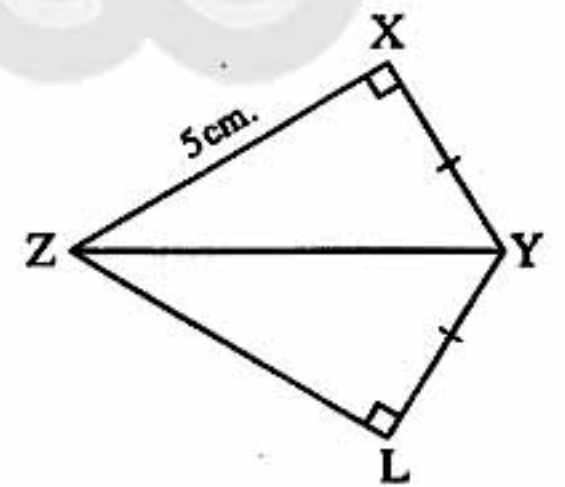


5 [a] In the opposite figure :

- $m(\angle ZXY) = m(\angle ZLY) = 90^\circ$
- , $XY = LY$ and $ZX = 5$ cm.

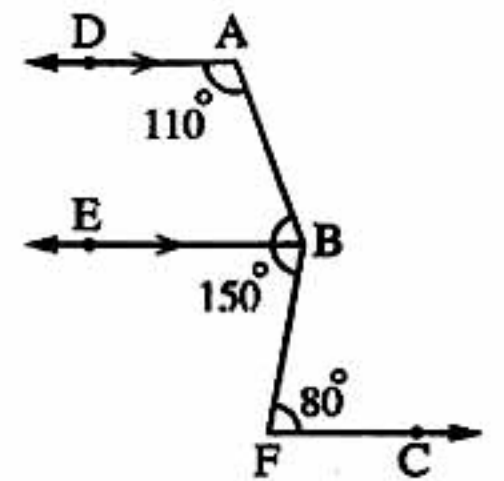
1 Is $\triangle YXZ \cong \triangle YLZ$? Why ?

2 Find : The length of \overline{ZL}



[b] In the opposite figure :

- $\overrightarrow{AD} \parallel \overrightarrow{BE}$
 - , $m(\angle F) = 80^\circ$
 - , $m(\angle A) = 110^\circ$ and $m(\angle ABF) = 150^\circ$
- Is $\overrightarrow{BE} \parallel \overrightarrow{FC}$? (Give reason)



11

El-Dakahlia Governorate

Talkha Educational Directorate
AMD.L School

Answer the following questions :

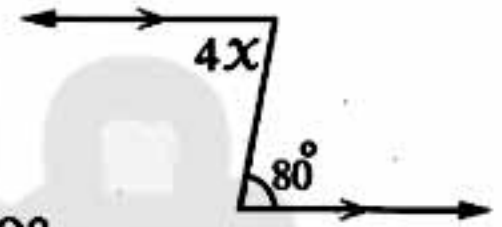
1 Choose the correct answer :

- 1 The sum of measures of the accumulative angles at a point is
- (a) 180° (b) 90° (c) 360° (d) 60°
- 2 The acute angle supplements angle.
- (a) an acute (b) an obtuse (c) a right (d) a reflex
- 3 The two straight lines parallel to a third straight line are
- (a) intersecting. (b) congruent. (c) parallel. (d) perpendicular.
- 4 If $\triangle ABC \cong \triangle DEF$, $m(\angle A) + m(\angle B) = 110^\circ$, then $m(\angle F) = \dots\dots\dots$
- (a) 180° (b) 110° (c) 80° (d) 70°

5 In the opposite figure :

 $x = \dots\dots\dots$

- (a) 80° (b) 100° (c) 20° (d) 40°

6 $\vec{AB} \cup \vec{AC} = \dots\dots\dots$

- (a) \vec{AB} (b) $\angle ABC$ (c) $\angle BAC$ (d) \emptyset

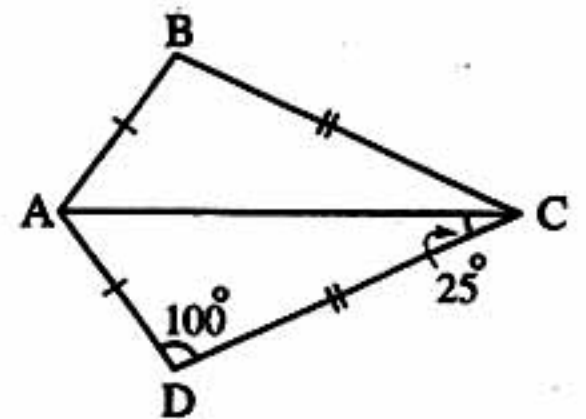
2 Complete the following :

- 1 The complement of an angle of measure 75° is an angle of measure
- 2 If $m(\angle A) = 160^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots^\circ$
- 3 If two straight lines intersect , then the measures of each two vertically opposite angles are
- 4 If $\vec{AB} \cong \vec{XY}$, then $AB - XY = \dots\dots\dots$
- 5 If $\angle A$ supplements $\angle B$ and $\angle A \cong \angle B$, then $m(\angle B) = \dots\dots\dots^\circ$

3 [a] State any two cases of congruency of two triangles.

[b] From the opposite figure :

- 1 Prove that : $\triangle ABC \cong \triangle ADC$
- 2 Find : $m(\angle BAC)$



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للمزيد من أعمالنا الحصرية تفضل بزيارة موقعنا الإلكتروني من هنا <https://www.zakrooly.com>

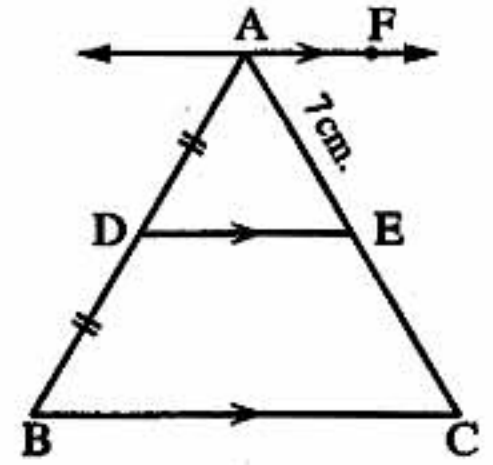
4 [a] In the opposite figure :

$$\overrightarrow{AF} \parallel \overrightarrow{DE} \parallel \overrightarrow{BC}$$

, D is the midpoint of \overline{AB}

, AE = 7 cm.

Find : AC



[b] Using the geometric instruments , draw ΔABC in which $BC = 6$ cm. , $AB = AC = 5$ cm. , then draw $\overline{AD} \perp \overline{BC}$ where $\overline{AD} \cap \overline{BC} = \{D\}$, Find by measuring : AD

(Don't remove the arcs)

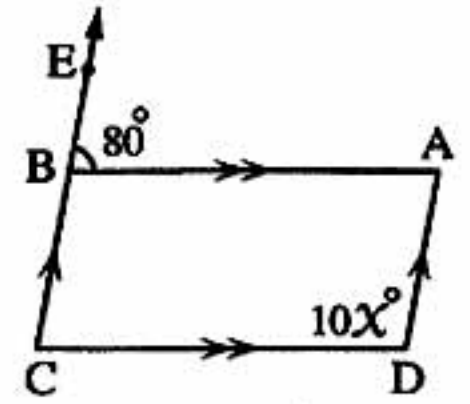
5 [a] In the opposite figure :

$$\overrightarrow{AB} \parallel \overrightarrow{DC} , \overrightarrow{BC} \parallel \overrightarrow{AD}$$

, $E \in \overrightarrow{BC}$, $m(\angle D) = 10x^\circ$

, $m(\angle ABE) = 80^\circ$

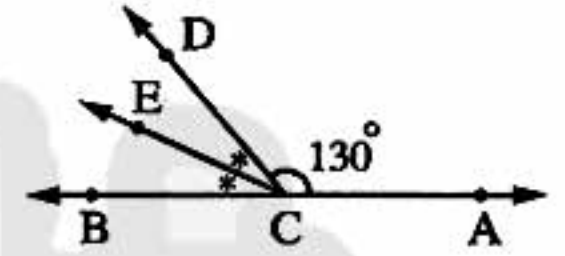
Find : The value of x



[b] In the opposite figure :

$C \in \overrightarrow{AB}$, $m(\angle ACD) = 130^\circ$, \overrightarrow{CE} bisects $\angle BCD$

Find : $m(\angle DCE)$



12

Ismailia Governorate

Directorate of Education
Math's Supervision

Answer the following questions :

1 Choose the correct answer :

1 The angle of measure 60° supplements an angle of measure $\dots\dots\dots^\circ$

- (a) 40 (b) 30 (c) 120 (d) 90

2 If two straight lines are perpendicular to a third , then the two straight lines are $\dots\dots\dots$

- (a) perpendicular. (b) intersecting. (c) parallel. (d) congruent.

3 If $\Delta ABC \cong \Delta XYZ$, $m(\angle A) + m(\angle B) = 140^\circ$, then $m(\angle Z) = \dots\dots\dots^\circ$

- (a) 60 (b) 40 (c) 80 (d) 140

4 The number of axes of symmetry of the square equals $\dots\dots\dots$

- (a) 1 (b) 2 (c) 3 (d) 4

5 If a straight line cuts two parallel lines , then each two corresponding angles are $\dots\dots\dots$

- (a) equal in measure. (b) complementary.
(c) supplementary. (d) right.



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6 If $m(\angle A) = 100^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots^\circ$

(a) 80

(b) 260

(c) 50

(d) 100

2 Complete the following :

1 If two adjacent angles are complementary, then their outer sides are

2 If $\Delta ABC \cong \Delta XYZ$, then $AC = \dots\dots\dots$

3 If $\angle C \cong \angle D$, $m(\angle C) = 90^\circ$, then $m(\angle D) = \dots\dots\dots^\circ$

4 The measure of the straight angle equals

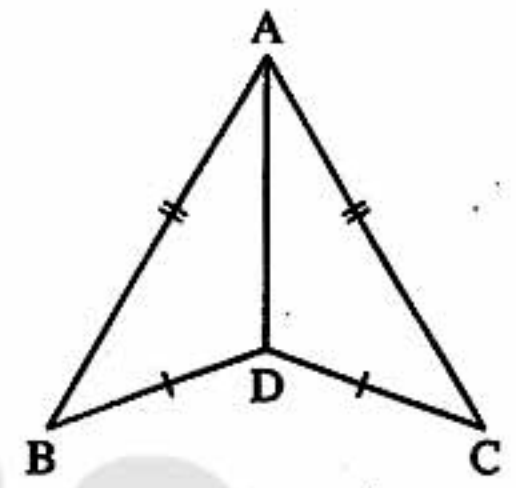
5 The perimeter of a square is 40 cm., then its side length is cm.

3 [a] In the opposite figure :

$$AC = AB$$

$$, DC = DB$$

Is $\Delta ADB \cong \Delta ADC$? Why?



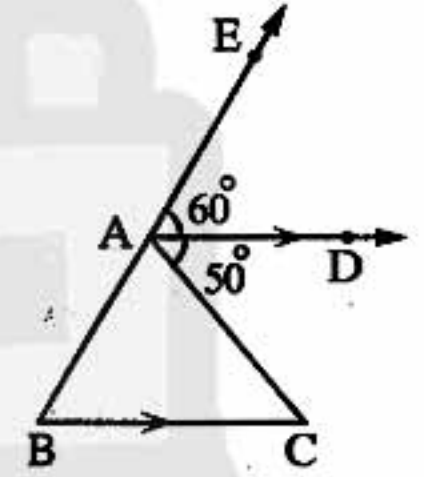
[b] In the opposite figure :

$$\overrightarrow{AD} \parallel \overrightarrow{BC}$$

$$, m(\angle EAD) = 60^\circ$$

$$, m(\angle CAD) = 50^\circ$$

Find : 1 $m(\angle C)$ 2 $m(\angle B)$ 3 $m(\angle BAC)$



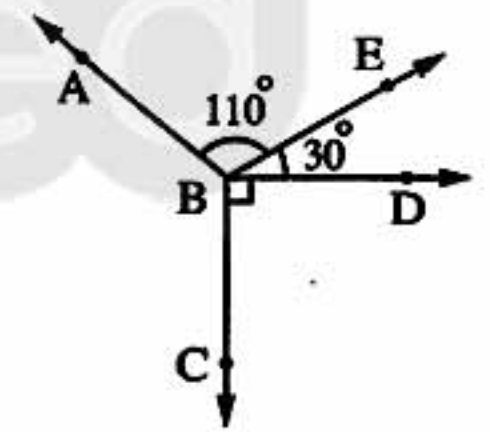
4 [a] In the opposite figure :

$$m(\angle DBE) = 30^\circ$$

, $\angle CBD$ is a right angle

$$, m(\angle EBA) = 110^\circ$$

Find : $m(\angle ABC)$



[b] Draw \overline{AB} of length 6 cm. and bisect it.

(Don't remove the arcs)

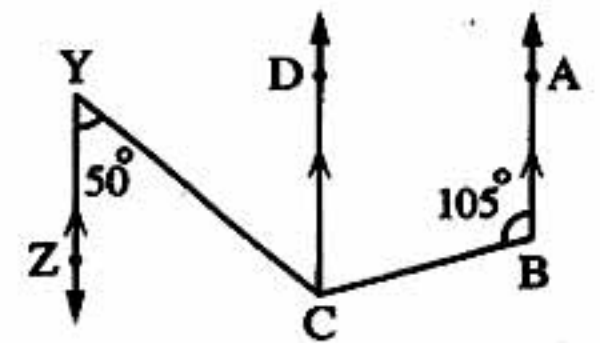
5 [a] In the opposite figure :

$$\overrightarrow{BA} \parallel \overrightarrow{CD} \parallel \overrightarrow{YZ}$$

$$, m(\angle ABC) = 105^\circ$$

$$, m(\angle ZYC) = 50^\circ$$

Find : 1 $m(\angle YCD)$ 2 $m(\angle BCD)$ 3 $m(\angle BCY)$



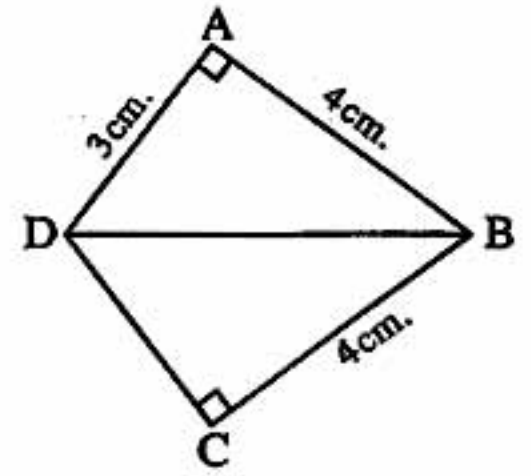
[b] In the opposite figure :

$$AB = BC = 4 \text{ cm. , } AD = 3 \text{ cm.}$$

$$, m(\angle A) = m(\angle C) = 90^\circ$$

[1] Is $\triangle ABD \cong \triangle CBD$? Why ?

[2] Find : The length of \overline{CD}



13

Damietta Governorate

Damietta Inspection of Mathematics
Official Language Schools

Answer the following questions :

1 Choose the correct answer :

[1] If $\angle X$ supplements $\angle Y$ and $\angle X \cong \angle Y$, then $m(\angle X) = \dots\dots\dots^\circ$

(a) 45 (b) 90 (c) 180 (d) 360

[2] If $\triangle ABC \cong \triangle XYZ$, then

(a) $AB = YZ$ (b) $BC = XZ$ (c) $YX = CA$ (d) $ZY = CB$

[3] The centimeter cube is a unit for measuring the

(a) perimeter. (b) area. (c) volume. (d) length.

[4] Two straight lines are perpendicular to a third line
 , then the two straight lines are

(a) perpendicular. (b) parallel. (c) congruent. (d) intersecting.

[5] $\overline{XY} \dots\dots\dots \overrightarrow{XY}$

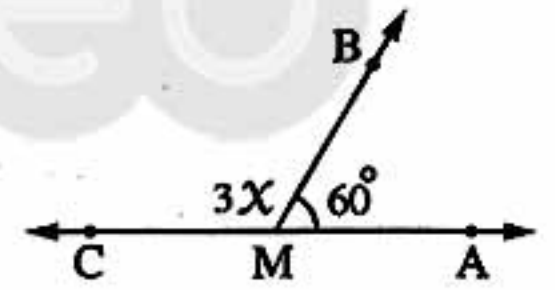
(a) \notin (b) \in (c) \subset (d) $\not\subset$

[6] In the opposite figure :

$$\text{If } \overrightarrow{AC} \cap \overrightarrow{MB} = \{M\}$$

, then the value of $X = \dots\dots\dots^\circ$

(a) 20 (b) 30 (c) 40 (d) 60



2 Complete each of the following :

[1] If $m(\angle A) = 120^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots^\circ$

[2] If the perimeter of a square is 20 cm. , then its area equals

[3] The number of edges of the cuboid is

[4] If a straight line cuts two parallel straight lines
 , then each two alternate angles are

[5] If $\overline{AB} \cong \overline{CD}$, then $AB - CD = \dots\dots\dots$

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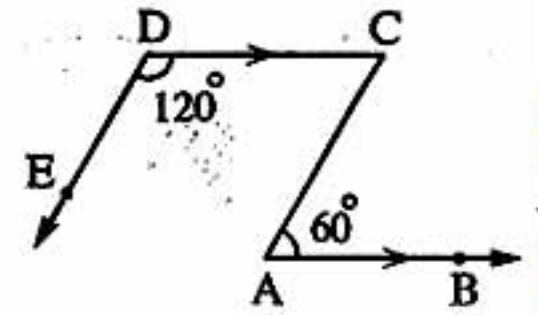
3 [a] In the opposite figure :

$$\overrightarrow{AB} \parallel \overrightarrow{DC}$$

$$, m(\angle A) = 60^\circ$$

$$, m(\angle D) = 120^\circ$$

1 Find : $m(\angle C)$ 2 Is $\overrightarrow{AC} \parallel \overrightarrow{DE}$? Why ? (Write the steps)



[b] Draw $\angle ABC$ where $m(\angle B) = 115^\circ$ Using the ruler and compasses bisect $\angle B$ by \overrightarrow{BD} (Don't remove the arcs)

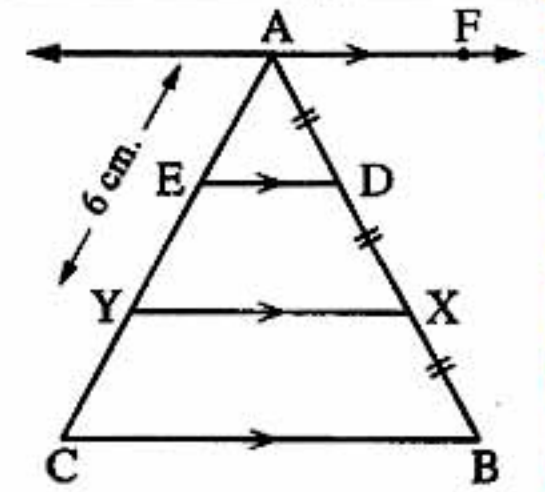
4 [a] In the opposite figure :

$$\overrightarrow{AF} \parallel \overrightarrow{DE} \parallel \overrightarrow{XY} \parallel \overrightarrow{BC}$$

$$, AD = DX = XB$$

$$, AY = 6 \text{ cm.}$$

Find : The length of \overrightarrow{AC} (Give the reason)



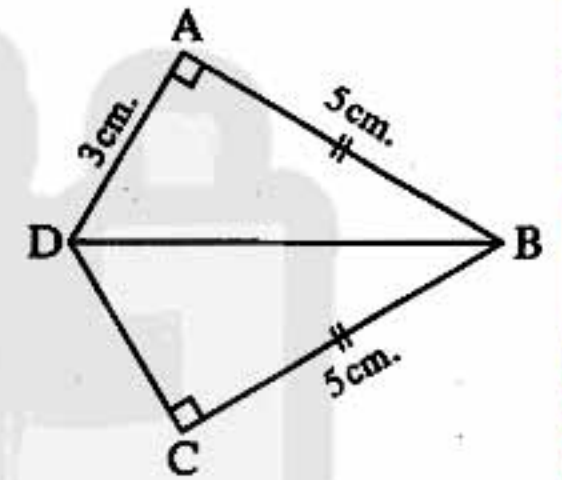
[b] In the opposite figure :

$$m(\angle BAD) = m(\angle BCD) = 90^\circ$$

$$, AB = CB = 5 \text{ cm.}, AD = 3 \text{ cm.}$$

Mention the conditions for $\triangle ABD$, $\triangle CBD$ to be congruent

, then find : The length of \overrightarrow{CD}



5 [a] In the opposite figure :

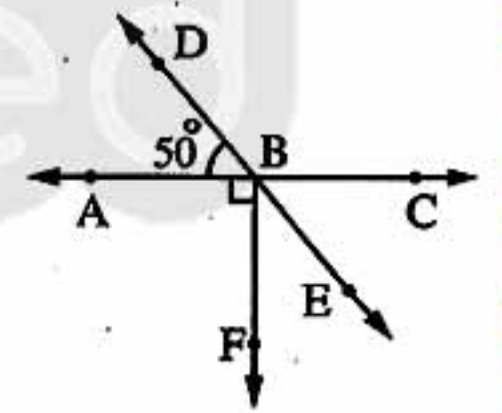
$$\overrightarrow{AC} \cap \overrightarrow{DE} = \{B\}$$

$$, m(\angle ABD) = 50^\circ$$

$$, m(\angle ABF) = 90^\circ$$

Find showing the steps :

1 $m(\angle DBC)$ 2 $m(\angle CBE)$ 3 $m(\angle FBE)$



[b] In the opposite figure :

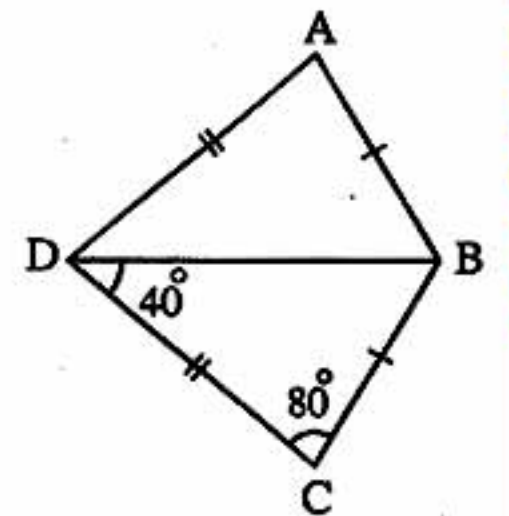
$$AB = BC, AD = CD$$

$$, m(\angle C) = 80^\circ$$

$$, m(\angle BDC) = 40^\circ$$

Is $\triangle CBD \cong \triangle ABD$? Why ?

and find : $m(\angle ABD)$



14

Souhag Governorate

Maths Supervision



Answer the following questions :

تابع جديد زاكروولي على موقعنا
<https://www.zakrooly.com>

1 Choose the correct answer :

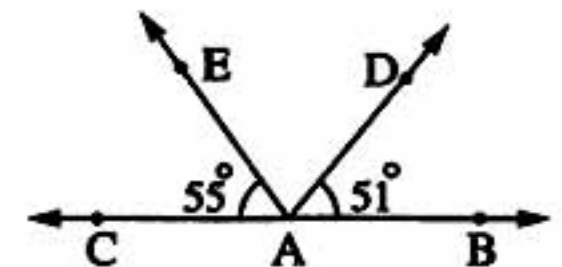
- 1 If $\angle X \equiv \angle Y$ and $\angle X, \angle Y$ are supplementary angles , then $m(\angle X) = \dots\dots\dots$
 (a) 45° (b) 90° (c) 135° (d) 180°
- 2 If two straight lines are perpendicular to a third line , then the two straight lines are
 (a) perpendicular. (b) parallel. (c) congruent. (d) intersecting.
- 3 If $\Delta XYZ \equiv \Delta ABC$ and $m(\angle A) + m(\angle B) = 100^\circ$, then $m(\angle Z) = \dots\dots\dots$
 (a) 50° (b) 80° (c) 100° (d) 360°
- 4 The angle whose measure is more than 90° and less than 180° is
 (a) obtuse. (b) acute. (c) right. (d) straight.
- 5 If $m(\angle X) = 2m(\angle Y)$, $\angle X$ and $\angle Y$ are two complementary angles
 , then $m(\angle Y) = \dots\dots\dots$
 (a) 90° (b) 45° (c) 30° (d) 15°
- 6 The sum of the measures of the accumulative angles at a point is
 (a) 45° (b) 90° (c) 180° (d) 360°

2 Complete each of the following :

- 1 If two straight lines intersects , then each two vertically opposite angles are
- 2 If $\Delta ABC \equiv \Delta XYZ$, then $XZ = \dots\dots\dots$
- 3 If $\angle A$ supplements $\angle B$, $m(\angle A) = 100^\circ$, then $m(\text{reflex } \angle B) = \dots\dots\dots^\circ$

4 In the opposite figure :

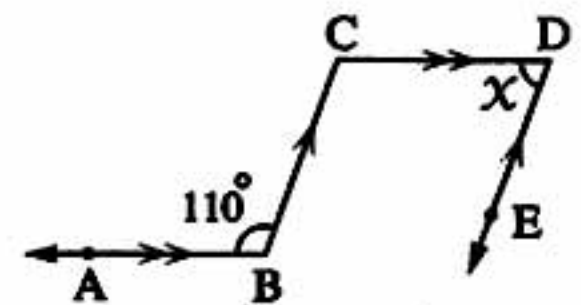
$$A \in \overleftrightarrow{CB}$$

, then $m(\angle DAE) = \dots\dots\dots^\circ$ 

5 In the opposite figure :

$$\overline{CD} \parallel \overline{BA}$$

$$\overline{DE} \parallel \overline{CB}$$

, then $x = \dots\dots\dots^\circ$ 

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3 [a] In the opposite figure :

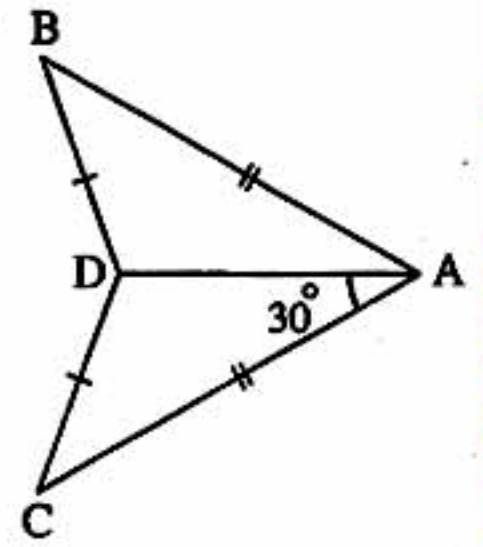
$$AB = AC$$

$$, BD = DC$$

$$, m(\angle CAD) = 30^\circ$$

1 Prove that : $\triangle ABD \cong \triangle ACD$

2 Find : $m(\angle CAB)$



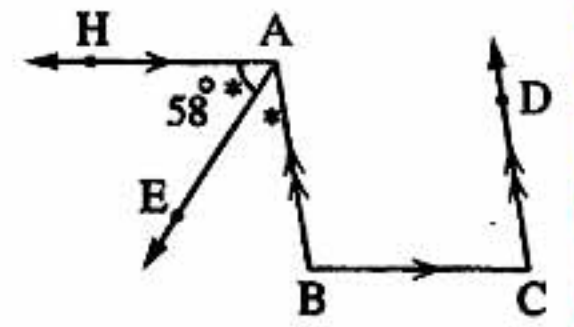
[b] Using the ruler and the compasses , draw the angle ABC where $m(\angle ABC) = 110^\circ$ and draw \overline{BD} to bisect the angle. (Don't remove the arcs)

4 [a] In the opposite figure :

$$\overline{CD} \parallel \overline{BA}, \overline{CB} \parallel \overline{AH}$$

$$, \overline{AE} \text{ bisects } \angle BAH, m(\angle EAH) = 58^\circ$$

Find : $m(\angle C)$

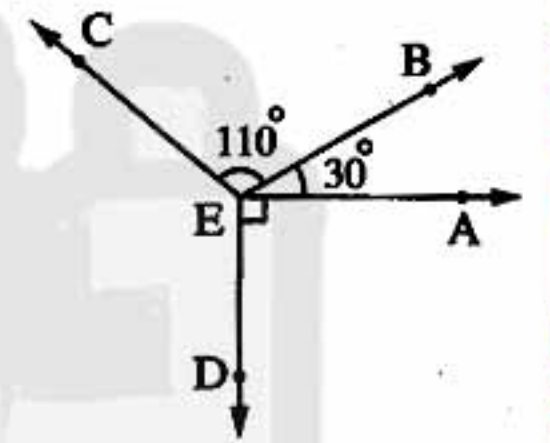


[b] In the opposite figure :

$$m(\angle AEB) = 30^\circ, m(\angle BEC) = 110^\circ$$

$$, m(\angle AED) = 90^\circ$$

Find : $m(\angle DEC)$



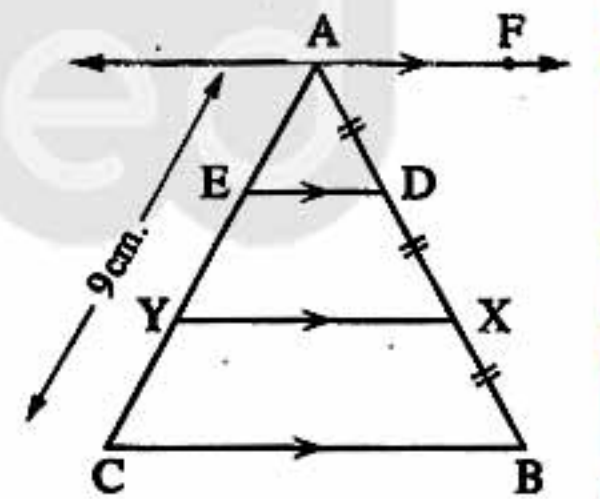
5 [a] In the opposite figure :

$$\overline{AF} \parallel \overline{ED} \parallel \overline{YX} \parallel \overline{CB}$$

$$, AD = DX = XB$$

$$, AC = 9 \text{ cm.}$$

Find : The length of \overline{AY}



[b] In the opposite figure :

$$m(\angle A) = m(\angle C) = 90^\circ, m(\angle ABD) = 31^\circ$$

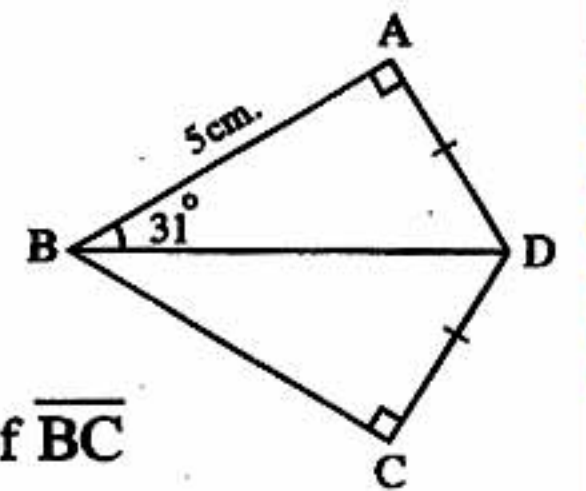
$$, AB = 5 \text{ cm.}$$

$$, AD = CD$$

1 Prove that : $\triangle ABD \cong \triangle CBD$

2 Find : The length of \overline{BC}

3 Find : $m(\angle CBD)$



15

Luxor Governorate

Luxor Directorate
El-Salam Language School

Answer the following questions :

1 Choose the correct answer :

- 1 A square is of side length 7 cm. , then its perimeter = cm.
 (a) 14 (b) 21 (c) 24 (d) 28
- 2 The circumference of the circle =
 (a) 2π (b) $2\pi r$ (c) πr (d) πr^2
- 3 The sum of measures of the accumulative angles at a point equals°
 (a) 360 (b) 180 (c) 603 (d) 150
- 4 If $L_1 \parallel L_3$, $L_2 \parallel L_3$, then
 (a) $L_1 \parallel L_2$ (b) $L_1 \perp L_2$ (c) $L_2 \perp L_3$ (d) $L_1 \perp L_3$
- 5 The measure of the supplement of the angle whose measure is 30° equals°
 (a) 60 (b) 180 (c) 150 (d) 90
- 6 If $\angle X$ complements $\angle Y$ and $\angle X \equiv \angle Y$, then $m(\angle X) = \dots\dots\dots^\circ$
 (a) 45 (b) 90 (c) 180 (d) 360

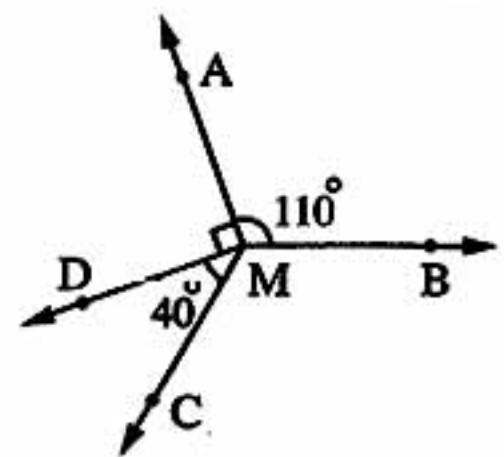
2 Complete :

- 1 Two triangles are congruent if two sides and of one triangle are congruent to their corresponding parts of the other triangle.
- 2 If $m(\angle A) = 105^\circ$, then $m(\text{reflex } \angle A) = \dots\dots\dots^\circ$
- 3 If $\triangle ABC \equiv \triangle XYZ$, then $\overline{AC} \equiv \dots\dots\dots$
- 4 If a straight line intersects two parallel lines , then each two corresponding angles are
- 5 In $\triangle ABC$, if $m(\angle A) = 50^\circ$, $m(\angle B) = 40^\circ$, then $m(\angle C) = \dots\dots\dots^\circ$

3 [a] In the opposite figure :

$$m(\angle AMB) = 110^\circ , m(\angle AMD) = 90^\circ$$

$$, m(\angle DMC) = 40^\circ$$

Find : $m(\angle BMC)$ (With steps)

[b] Using the geometric tools , draw $\angle ABC$ whose measure is 90°
 , then draw \overrightarrow{BF} to bisect the angle. (Don't remove the arcs)

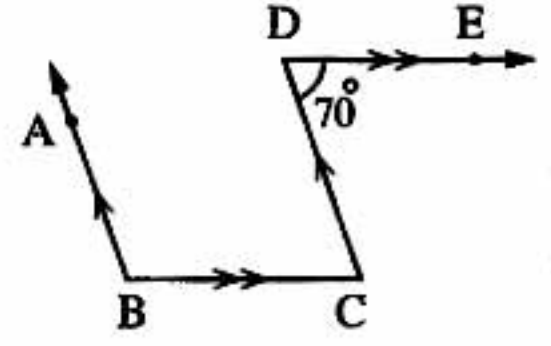
4 [a] In the opposite figure :

$$\overrightarrow{DE} \parallel \overrightarrow{BC}$$

$$\overrightarrow{DC} \parallel \overrightarrow{BA}$$

$$, m(\angle D) = 70^\circ$$

Find : $m(\angle C)$, $m(\angle B)$ (Give reason)



[b] In the opposite figure :

The polygon ABCD \cong the polygon AFHD

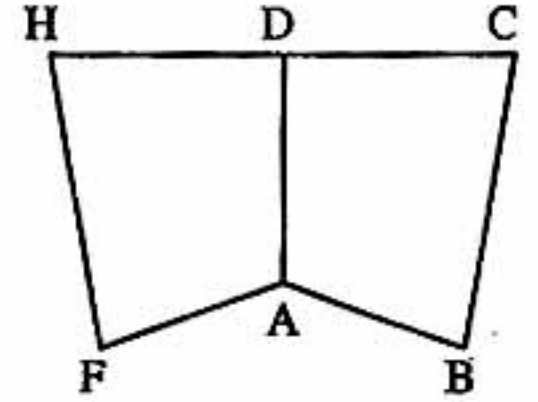
Complete :

1 AB =

2 BC =

3 $m(\angle C) = m(\angle \dots\dots\dots)$

4 $m(\angle F) = m(\angle \dots\dots\dots)$



5 [a] In the opposite figure :

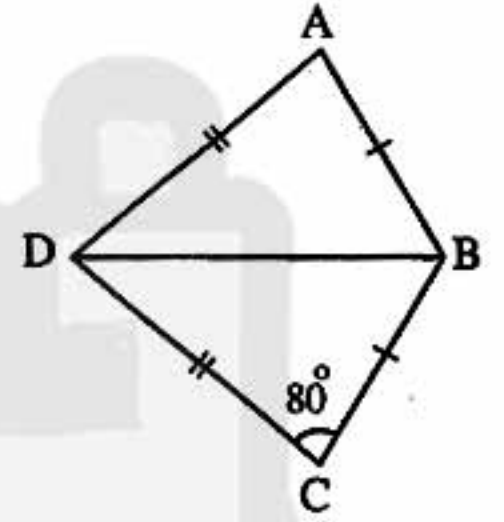
$$AB = BC$$

$$, AD = DC$$

$$, m(\angle C) = 80^\circ$$

1 Prove that : $\triangle ABD \cong \triangle CBD$

2 Find : $m(\angle A)$



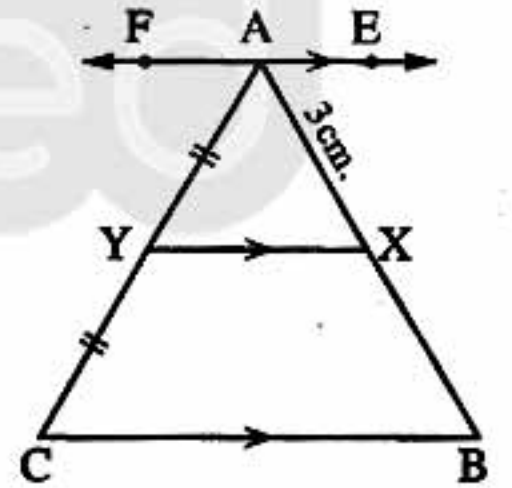
[b] In the opposite figure :

$$\overrightarrow{AF} \parallel \overrightarrow{XY} \parallel \overrightarrow{BC}$$

$$, AY = YC$$

$$, AX = 3 \text{ cm.}$$

Find : The length of \overline{AB} (Give reason)



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